

# Global Reporting Initiative (GRI) Report & Content Index 2019

July 2019

It's part of our  
Blueprint for Yorkshire



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## Introduction

The Global Reporting Initiative (GRI) is a leading organisation in global sustainability reporting. GRI promotes the use of sustainability reporting as a way for organisations to become more sustainable and contribute to sustainable development. This 2019 GRI Report & Content Index report, prepared in accordance with GRI Standards, supplements our 2019 Annual Report and Financial Statements (ARFS) and Annual Performance Report (APR) for the fiscal year 2018/19. This report aims to increase our transparency and communicate our impacts on sustainability issues to our stakeholders. It is mapped to the United Nations Sustainable Development Goals (SDGs) to demonstrate our support for the Goals. It has been reviewed internally by the data owners and the ARFS and APR have been externally audited.

## Stakeholder Feedback Table

Throughout the past year we have engaged with our stakeholders in a range of ways. The table below logs the topics they have raised and shows how we are addressing their concerns in our ARFS, APR and on our corporate website.

Stakeholder group	Engagement methods	Frequency of engagement	Topic Discussed	Where addressed
Customers	On-line community Brand tracker survey Deliberative workshops Yorkshire forum for water customers Online surveys Face to face interviews including vulnerable/hard to reach	Weekly Monthly Ongoing Monthly  Ongoing Ongoing	<ol style="list-style-type: none"> <li>1. Prioritisation of services now and in the future - secure supply of drinking water, reduction in leakage, reduction in flooding incidents, affordability and vulnerability.</li> <li>2. Development of the PR19 business plan and long-term strategy, ensuring appropriate plans are in place to service a growing population and cope with climate change</li> <li>3. Understanding customers' lifestyle needs to support the ongoing activity - behaviour change to reduce water consumption</li> <li>4. Full review of regulatory and company published data to ensure it is accessible and understandable</li> </ol>	<ol style="list-style-type: none"> <li>1. ARFS – “We make sure that you always have enough water” &amp; “We take care of your waste water and protect you and the environment from sewer flooding” &amp; “We keep your bills as low as possible” &amp; <a href="#">The long-term strategy</a></li> <li>2. ARFS – “We understand our impact on the wider environment and act responsibly” <a href="#">Big Goals</a></li> <li>3. <a href="#">Save Water</a></li> <li>4. The ARFS (and APR) are reviewed by the Board and by the Audit Committee to ensure they are fair, balanced and understandable.</li> </ol>
Customer Challenge Group – Yorkshire Forum for Water Customers	Meetings Written reports and information requests	Monthly	<ol style="list-style-type: none"> <li>5. AMP6 performance commitments</li> <li>6. PR19 business planning</li> <li>7. Customer engagement</li> <li>8. PR19 customer research</li> <li>9. Affordability</li> </ol>	<ol style="list-style-type: none"> <li>5. 26 performance commitments head up the various sections of the strategic report, structured by customer outcomes</li> <li>6. <a href="#">Our next business plan</a></li> </ol>



	Shared meetings with YORKSHIRE WATER Board members		10. Environmental protection and investment performance 11. Customer service performance	7. ARFS – “We provide the level of customer service you expect and value” 8. <a href="#">Our next business plan</a> 9. ARFS – “We keep your bills as low as possible” 10. ARFS – “We understand our impact on the wider environment and act responsibly” & Directors Report 11. ARFS – “We provide the level of customer service you expect and value”
Colleagues	Kelda Voice (colleague survey) feedback Kelda leadership events (face to face events with the whole management population) Director/senior leader roadshows (opportunity for colleagues to provide feedback and ask questions) Yammer (internal social media) Intranet (the hive) YamJam (on-line colleague discussions) Publications 30 Years’ Service Awards Colleague recognition event	Twice a year  Twice a year  Quarterly  Daily  Daily Quarterly  Quarterly Annually  Annually	12. Economic Performance 13. Procurement 14. Indirect Economic Impacts 15. Anti-Competitive Behaviour 16. Energy 17. Waste & effluents 18. Emissions 19. Environmental Compliance 20. Employee Relations 21. Health & Safety of employees and customers 22. Training & Education 23. Non-Discrimination 24. Forced Labour 25. Charity and fundraising 26. Key company and project updates 27. IT Security	12. ARFS – “We understand our impact on the wider environment and act responsibly” 13. ARFS – “We understand our impact on the wider environment and act responsibly” 14. <a href="#">Local improvements</a> 15. <a href="#">Retail Competition</a> <a href="#">Legal</a> 16. ARFS – “We understand our impact on the wider environment and act responsibly” 17. ARFS – “We take care of your waste water and protect you and the environment from sewer flooding” and “We improve and protect the water environment” 18. ARFS – We understand our impact on the wider environment and act responsibly” 19. ARFS – “We take care of your waste water and protect you and the environment from sewer flooding” 20. Employees and employment policies 21 – 26. ARFS – “We understand our impact on the wider environment and act responsibly” Identifying & managing our risks 27. ARFS – A summary of principle risks
Local authorities NGOs, politician & other stakeholders	Dedicated Political and Stakeholder Engagement Team meet with them Meetings to discuss PR19 plans 1-1 meetings with individuals Individual Directors assigned as points of contact for each local authority Multi-stakeholder round table discussions Site visits to understand	We see local authorities annually for a review meeting, we might see them more frequently if there is a local issue. If there’s something in a constituency or a particular policy issue MPS are interested in we might see them a lot. One MP was seen once or twice a month for a part of last year.	28. Flood prevention 29. Partnership working 30. Catchment management 31. Affordability 32. Planning, housing & population growth 33. Safeguarding & support for vulnerable customers 34. Local investment 35. Infrastructure to support growth 36. Water resources 37. Pollution prevention 38. Transparency & legitimacy 39. Land Management 40. Environmental regulation 41. Fracking	28. ARFS – “We take care of your waste water and protect you and the environment from sewer flooding” 29. ARFS – “We protect and improve the water environment” 30. ARFS – “We make sure that you always have enough water” 31. ARFS – “We keep your bills as low as possible” <a href="#">Financial help for water bills on the rise</a> 32. ARFS – “Resilience and sustainability are imperatives within our new strategy” “A summary of our principal risks” 33. <a href="#">Priority Services Register</a> 34. ARFS – “New Service Commitments”, “Securing Water Supplies”, APR 35. ARFS – “We keep your bills as low as possible” <a href="#">Big Goals</a> 36. ARFS – “We make sure that you always have enough water”

	YORKSHIRE WATER operations and see investment in action. Membership of partnership boards and steering groups: Calderdale Flood Partnership Board, Leeds City Region Flood Review Group, Yorkshire Regional Flood and Coastal Committee		42. Environmental improvement	37. ARFS – “We protect and improve the water environment” 38. Corporate Governance Report 39. ARFS – “We protect and improve the water environment” 40. ARFS – “We protect and improve the water environment” 41. <a href="#">Fracking</a> 42. ARFS – “We protect and improve the water environment”
Regulators – Environment Agency (EA)	Meetings to discuss undertakings. Director assigned as EA point of contact Multi-stakeholder round table discussions Site visits to understand YORKSHIRE WATER operations and see investment in action. Joint Management Group and technical subgroups	On-going daily interactions as needed. Monthly senior level engagement	43. Investment in improved catchments 44. Investment in improving rivers and habitats 45. Water resources 46. Pollution prevention 47. Transparency & legitimacy 48. Land management 49. Environmental regulation 50. Environmental improvements 51. Partnership working 52. Natural flood management	43 – 51. ARFS – “We protect and improve the water environment” 52. ARFS – “We take care of your waste water and protect you and the environment from sewer flooding”
Regulators - Ofwat	Meetings Consultations Industry workshops	On-going daily interactions with senior level engagement every quarter	53. Regulation 54. Transparency and governance 55. Response to severe weather (Beast from the East) 56. Customer experience 57. Resilience 58. Affordability and vulnerability 59. Innovation and efficiency 60. Performance and incentives	53. ARFS – “Maintaining excellent drinking water quality” & “Reducing pollution and enhancing river quality” <a href="#">Our regulators</a> 54. ARFS – Corporate Governance Report 55. ARFS – “We make sure that you always have enough water” 57. Strategic Report – “Long term viability statement” <a href="#">Resilience</a> 58. ARFS – “We keep your bills as low as possible” & “Long-term viability statement” <a href="#">Not just water</a> 59. <a href="#">What we do</a> 60. <a href="#">Our Performance How we’re measuring up</a>
Regulators – Drinking Water Inspectorate	Meetings Industry workshops	On-going daily interactions with senior level engagement every quarter	61. Water quality metrics and performance	61. ARFS – “We provide you with water that is clean and safe to drink”

Government - Defra	Consultations Industry workshops Communication with the Secretary of State	Yearly meetings as a minimum. Engagement is on-going as and when needed to inform our plans	62. Water resource planning 63. Environmental policy & regulation 64. Post Brexit planning	62. ARFS – “We protect and improve the water environment” 63. ARFS – “We understand our impact on the wider environment and act responsibly” 64. ARFS – Board Activities
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## GRI Content Index

**GRI 101: Foundation 2016** – Does not include any disclosures

**GRI 102: General Disclosures 2016**

Organisational Profile			
Disclosure Number	Disclosure Title	Location or Answer	SDG
102.1	Name of the organisation	Yorkshire Water Services Limited	
102.2	Activities, brands, products, and services	ARFS – p6, 10,11 <a href="#">What we do</a>	
102.3	Location of headquarters	Western House, Halifax Road, Bradford BD6 2SZ	
102.4	Location of operations	ARFS p6 Corporation and other taxes	
102.5	Ownership and legal form	ARFS – Our corporate structure p46 Note 25 to the statutory financial statements p153	
102.6	Markets served	ARFS – Yorkshire Water at a glance p6 Corporation and other taxes <a href="#">What we do</a>	
102.7	Scale of the organisation	ARFS – Performance highlights p5, 6	

102.8	Information on employees and other workers	ARFS – Championing diversity p34 <table border="1"> <thead> <tr> <th></th> <th>Female</th> <th>Male</th> </tr> </thead> <tbody> <tr> <td>Full-time</td> <td>601</td> <td>2417</td> </tr> <tr> <td>Part-time</td> <td>167</td> <td>60</td> </tr> <tr> <td>Fixed-term</td> <td>48</td> <td>54</td> </tr> <tr> <td>Permanent</td> <td>720</td> <td>2423</td> </tr> </tbody> </table>		Female	Male	Full-time	601	2417	Part-time	167	60	Fixed-term	48	54	Permanent	720	2423	8
	Female	Male																
Full-time	601	2417																
Part-time	167	60																
Fixed-term	48	54																
Permanent	720	2423																
102.9	Supply chain	ARFS – Ensuring responsibility throughout our supply chain p33 The Yorkshire Water supply chain is very diverse and varied. We need to satisfy the core operational requirements of water and waste water service delivery, and the capital and construction requirements of Asset Management. We also need to cater for the direct and indirect requirements of the supporting directorates, including: Human Resources, Finance Legal and Regulation, Communications and Occupational Health and Safety. We have circa 1200 live and approved vendors split across several procurement categories: <ul style="list-style-type: none"> <li>• Operational Assets and Capital Delivery (Tier 1 Partners and Direct Procure; Civils and Infrastructure; Mechanical; Electrical; Pumps; Process Safety).</li> <li>• Direct Goods and Services (Bioresources; Recycling and Waste; Maintenance Services; Utilities and Fuel; Chemicals; Maintenance, Repair and Overhaul).</li> <li>• Indirect Goods and Services (People and Professional Services; Facilities management and Fleet; Information Technology).</li> </ul> Yorkshire Water expenditure is circa £750m per year.																
102.10	Significant changes to the organisation and its supply chain	Launch of our <a href="#">Sustainable Finance Framework</a> ARFS - Our Financial Performance and Governance p40 &41 In sourcing of 180 colleagues from Amey meaning that works such as jetting, CCTV investigations and cleansing work will now be done internally.																
102.11	Precautionary Principle or approach	ARFS – Identifying and managing our risks p48																
102.12	External Initiatives	ARFS – p9, 26, 32																
102.13	Membership of associations	ARFS – p18, 21, 26, 28, 35																
<b>Strategy</b>																		
<b>Disclosure Number</b>	<b>Disclosure Title</b>	<b>Location or Answer</b>	<b>SDG</b>															
102.14	Statement from senior decision-maker	ARFS – Chairman’s statement p7 ARFS – CEO overview p8, 9																

102.15	Key impacts, risks, and opportunities	ARFS – Disclosing our climate change risks and strategy p59 ARFS – Identifying and managing our risks p48 <a href="#">The Long-term Strategy</a> <a href="#">Our Contribution to Yorkshire</a> For impacts see pages: 7, 11, 13, 15, 23, 25, 29, 45, 51, 57 For opportunities see pages: 17, 31, 38, 40, 47, 51, 59	
<b>Ethics &amp; Integrity</b>			
<b>Disclosure Number</b>	<b>Disclosure Title</b>	<b>Location or Answer</b>	<b>SDG</b>
102.16	Values, principles, standards, and norms of behaviour	ARFS – Business performance p17 - 46 <a href="#">Our Vision and Values</a>	16
<b>Governance</b>			
<b>Disclosure Number</b>	<b>Disclosure Title</b>	<b>Location or Answer</b>	<b>SDG</b>
102.18	Governance structure	ARFS – Board of Directors p72 – 83	16
102.19	Delegating authority	We manage economic, environmental, social topics through our corporate governance structure. We have several committees which oversee the management of a range of sustainability topics. Our Business Investment Committee has responsibility for expenditure. The audit committee assures and manages all risks. We also have committees with responsibilities for health and safety, remuneration and a social value committee as outlined in the Corporate Governance Report of the ARFS.	
102.20	Executive-level responsibility for economic, environmental, and social topics	The Board and Social Value committee have responsibility for sustainability topics. All executive directors have responsibilities as outlined in the Governance Report, with the Chief Executive having overall responsibility. All the executive directors sit on the Board. <a href="#">Corporate governance and structure</a>	
102.21	Consulting stakeholders on economic, environmental, and social topics	ARFS – Engaging with customers and stakeholders p18	16



102.22	Composition of the highest governance body and its committees	ARFS – Board of directors p72 - 76	16, 5
102.23	Chair of the highest governance body	ARFS – Board of directors p73	16
102.24	Nominating and selecting the highest governance body	ARFS – Nomination committee report p84 & 85	16, 5
102.25	Conflicts of interest	ARFS – Non-executive director meetings p82	16
102.26	Role of highest governance body in setting purpose, values, and strategy	ARFS – Leadership team p76 - 77	
102.27	Collective knowledge of highest governance body	ARFS – Board of directors p72 - 76	4
102.29	Identifying and managing economic, environmental, and social impacts	The Board is the highest governing body for Yorkshire Water and they regularly discuss sustainability issues. They ensure that due diligence is followed via a suite of committees, in particular the Social Value Committee see p86 - 88 of the ARFS. The Strategic Report and the Corporate Governance Report explain how the Board responds to customer research. This research has shaped our strategy and has sustainability at its heart.	16
102.30	Effectiveness of risk management processes	ARFS – Identifying and managing our risks p48 - 50	
102.31	Review of economic, environmental, and social topics	We have a rolling programme of reviews of economic, environmental, and social topics at every committee meeting.	
102.32	Highest governance body's role in sustainability reporting	Yorkshire Water produce an integrated Annual Report and Financial Statements which covers our sustainability topics. The ARFS is signed off by the Board.	
102.33	Communicating critical concerns	ARFS – Identifying and managing our risks p48 - 50	

102.34	Nature and total number of critical concerns	ARFS – Identifying and managing our risks p48 A summary of our principle risks p52 - 59	
102.35	Remuneration policies	Directors' remuneration report p98	
102.36	Process for determining remuneration	Directors' remuneration report p98 - 110	
<b>Stakeholder Engagement</b>			
<b>Disclosure Number</b>	<b>Disclosure Title</b>	<b>Location or Answer</b>	<b>SDG</b>
102.40	List of stakeholder groups	GRI Report – p3 - 6	
102.41	Collective bargaining agreements	100% of employees are entitled to join a union. We only collectively bargain with the unions for those in grades 4,5 and 6 in Yorkshire Water. This constitutes 93% of colleagues. Directors Remuneration Report - Remuneration policy for other employees	8
102.42	Identifying and selecting stakeholders	ARFS – Engaging with customers and stakeholders p18	
102.43	Approach to stakeholder engagement	ARFS – Our new long-term strategy p11 ARFS – Engaging with customers and stakeholders p18 - 19 ARFS – Global Reporting Initiative p69	
102.44	Key topics and concerns raised	GRI Report – p3 - 6 ARFS – Global Reporting Initiative p69	
<b>Reporting Practice</b>			
<b>Disclosure Number</b>	<b>Disclosure Title</b>	<b>Location or Answer</b>	<b>SDG</b>
102.45	Entities included in the consolidated financial statements	ARFS – Note 1 to the statutory financial statements p126	
102.46	Defining report content and topic boundaries	The AFRS reports activities and performance indices limited to Yorkshire Water Services Ltd and its supply chain in the UK for the financial year ended March 2019. Through internal discussions, we have decided that this is an appropriate boundary as it keeps it in-line with how we report more generally, such as the BITC Index, which is one of our other	

		<p>sustainability reporting tools. It was also deemed an appropriate boundary for the report as this covers our whole company.</p> <p>We aim to understand the total impact of everything material that Yorkshire Water does, including the impact of our customers' use of our products, and our supply chain. We hope to develop the scope of our reporting to include this further in the future.</p> <p>Our Total Impact and Value Assessment (TIVA) looks at a broad range of economic, environmental and social priorities, so that we are considering our impacts and associated economic value <a href="#">Our Contribution to Yorkshire</a></p>	
102.47	List of material topics	ARFS – Global Reporting Initiative p69	
102.48	Restatements of information	No restatements	
102.49	Changes in reporting	None	
102.50	Reporting period	2018/19	
102.51	Date of most recent report	March 2019	
102.52	Reporting cycle	2018/19	
102.53	Contact point for questions regarding the report	<a href="mailto:publicaffairs@yorkshirewater.co.uk">publicaffairs@yorkshirewater.co.uk</a> <a href="#">Contact Us</a>	
102.54	Claims of reporting in accordance with the GRI Standards	ARFS – Global Reporting Initiative p69	
102.55	GRI content index	<a href="#">Our Reports</a>	
102.56	External assurance	Assuring the quality of this strategic report p70	

**GRI 103: Management Approach 2016**

Disclosure Number	Disclosure Title	Location or Answer	SDG
103.1	Explanation of the material topic and its Boundary	ARFS – Yorkshire Water at a glance p6 ARFS – Business model p14 & 15 ARFS – Global Reporting Initiative p69	
103.2	The management approach and its components	<a href="#">Risk &amp; Compliance Statement</a>	1, 5, 8, 16

103.3	Evaluation of the management approach	<a href="#">Data Assurance Summary</a>	
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Information on the Management Approach for the following topic-specific GRI Standards: 201, 203, 204, 302, 303, 305, 306, 307, 308, 402, 403, 404, 405, 408, 409, 412, 413, 414, 416, 418, 419 is addressed in the chart above.

Other information about the management approach of specific topics is included in the appropriate section of the table below.

### Economic Disclosures

Disclosure Number	Disclosure Title	Location or Answer	SDG
GRI 201	Economic Performance 2016		
201.1	Direct economic value generated and distributed	ARFS – Statutory financial statements p122 -124 <a href="#">Our Contribution to Yorkshire</a> ARFS – Notes to the financial accounts p125 - 153	2, 5, 7, 8, 9
201.2	Financial implications and other risks and opportunities due to climate change	ARFS – Disclosing our climate change risks and strategy p66 - 68 <a href="#">Climate Change</a> <a href="#">Water Resources Management Plan</a>	13
GRI 203	Indirect Economic Impacts 2016		
203.1	Infrastructure investments and services supported	<a href="#">Local Improvements</a> <a href="#">Water Bill Charges</a> <a href="#">Sheffield Reservoir Investment</a> ARFS – Other disclosures - Capital and infrastructure renewals expenditure p96 Note 12 to the statutory financial statements p138 – 140 Note 23 to the statutory financial statements p151 Note 26 to the statutory financial statements p153 Local information about investment work can be found here – <a href="#">Local Improvement</a>	2, 5, 9, 11
GRI 204	Procurement Practices 2016		
204.1	Proportion of spending on local suppliers	As a UK Utilities company, we are governed by the Utilities Contracts Regulations 2016, that ensures we facilitate an open and transparent tendering process accessible to any qualifying entity within the EU. Therefore, we cannot preferentially select local suppliers and we do not monitor this. However, as many of our service agreements require short timescale service level agreements it is inevitable that we will employ a number of local suppliers.	12

103.2	The management approach & its components	<a href="#">The Kelda Group Sustainable Supply Chain Policy</a> <a href="#">Become a Supplier</a> Appendix 1: GRI 204, 308, 414 – Procurement practices	1, 5, 8, 16
103.3	Evaluation of the management approach	Appendix 1: GRI 204, 308, 414 – Procurement practices	

### Environmental Disclosures

Disclosure Number	Disclosure Title	Location or Answer	SDG
GRI 302	Energy 2016		
302.1	Energy consumption within the organisation	ARFS – Managing electricity consumption and costs p30 In 2018/19 we consumed 622GWh of electricity. We used 337,646GJ of fuel from non-renewable sources (diesel, petrol, gas oil, kerosene and natural gas) and 252,541 GJ from renewable sources (including electricity and heat). We also sold 0.4GWh of electricity. We used the water industry’s Carbon Accounting Workbook (CAW), Optima, Energy providers and Allstar fuel cards to calculate energy uses. Conversion factors came from: <a href="https://www.gov.uk/government/statistics/dukes-calorific-values">https://www.gov.uk/government/statistics/dukes-calorific-values</a>	7, 8, 12, 13
302.3	Energy Intensity	ARFS – Reducing operational greenhouse gas emissions p31 The metric used to calculate our energy intensity ratio is kilowatts per mega-litre. The only energy used in the ratio is electricity and we only include energy consumption from within Yorkshire Water in the ratio.	7, 8, 12, 13
302.4	Reduction of energy consumption	ARFS– Managing electricity consumption and costs p30 In 2018/19, we continued to focus on energy reduction by monitoring key process parameters as well as savings being made every year based on efficiencies implemented in previous years. We calculate our reductions using a baseline of how the device/system was originally performing. We then replicate the test conditions after the efficiency changes are made to gain the most accurate picture of our efficiency improvements. All calculations were done in house and overseen by our lead ESOS assessor.	7, 8, 12, 13



302.5	Reductions in energy requirements of products and services	<p>ARFS – Managing electricity consumption and costs p30</p> <p>After years of falling energy requirements, unfortunately, the electricity requirements of our services have increased this year in clean water. This is due to a period of sustained hot and dry weather through summer and into autumn. This resulted in the need to extract water from sources requiring more energy intensive treatment, and increased pumping of water around the region to meet customer demand.</p> <p>Waste has seen a decline in electricity due to the measures outlined in section 302.4</p> <p>Our waste water consumption decreased from 325GWh in 2017/18 to 317GWh 2018/19</p> <p>Clean consumption increased from 282GWh in 2017/18 to 305GWh 2018/19</p>	7, 8, 12, 13
<b>GRI 303</b>	<b>Water &amp; Effluents 2018</b>		
303.1	Interactions with water as a shared resource	<p>ARFS – Customer Outcome: We make sure that you always have enough water p22</p> <p>See Appendix 2 – Water &amp; Effluents</p>	
303.2	Management of water discharge-related impacts	See Appendix 2 – Water & Effluents	
303.3	Water withdrawal	<p>ARFS –Customer Outcome: We make sure that you always have enough water p22</p> <p>See Appendix 2 – Water &amp; Effluents</p>	6
303.4	Water discharge	See Appendix 2 – Water & Effluents	
303.5	Water consumption	<p>ARFS – Customer Outcome: We make sure that you always have enough water p22</p> <p>See Appendix 2 – Water &amp; Effluents</p>	
<b>GRI 305</b>	<b>Emissions 2016</b>		
305.1	Direct (Scope 1) GHG emissions	<p>ARFS – Reducing Operational greenhouse gas emissions p31</p> <p>Yorkshire Water’s annual carbon emissions are accounted for using the water industry standard Carbon Accounting Workbook (CAW). The gasses that are accounted for are CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub>, from this our annual CO<sub>2</sub>e value is determined. 2008 is used as the base year, which is the year when the CAW was first released with emissions being reportable to Ofwat. All emission factors come from the CAW which is updated annually to reflect the most up to date figures.</p> <p>Though the published figure for carbon emissions is for the whole business the carbon accounting workbook breaks it down into operational sections, such as clean water and waste, allowing us to have a more granular view of where our emissions are based.</p> <p>All assumptions that are made can be found in the GHG Procedure documents. However, all material emissions are accounted for, with the majority have a high confidence factor around the accuracy of the data.</p>	3, 12, 13, 14, 15
305.2	Energy indirect (Scope 2) GHG emissions		
305.3	Other indirect (Scope 3) GHG emissions		
<b>GRI 306</b>	<b>Effluents &amp; Waste 2016</b>		

306.2	Waste by type and disposal method	ARFS – We understand our impact on the wider environment and act responsibly p30 Appendix 3: GRI 306 – Waste	3, 12, 13, 14, 15
103.2	The management approach & its components	Appendix 3: GRI 306 – Waste	3, 6, 12
103.3	Evaluation of the management approach	Appendix 23 GRI 306 – Waste	1, 5, 8, 16
<b>GRI 307</b>	<b>Environmental Compliance 2016</b>		
307.1	Significant fines and non-monetary sanctions for non-compliance with environmental laws and/or regulations	We did not receive any prosecutions or cautions in 2018/19	
<b>GRI 308</b>	<b>Supplier Environmental Assessment 2016</b>		
308.2	Negative environmental impacts in the supply chain and actions taken	ARFS – Ensuring responsibility throughout our supply chain p33 <a href="#">The Kelda Group Sustainable Supply Chain Policy</a> <a href="#">Become a Supplier</a> Appendix 1: GRI 204, 308, 414 – Procurement practices	

**Social Disclosures**

Disclosure Number	Disclosure Title	Location or Answer	SDG
GRI 402	Labour/ Management Relations 2016		
402.1	Minimum notice periods regarding operational changes	Yorkshire Water abides by or exceed the law’s requirements with regards to timescale on notice periods. All changes (regardless of size) are handled in accordance with the YORKSHIRE WATER Stress Policy, with a stress risk assessment being undertaken to minimise the impacts of the change on colleagues. Provisions for consultation are contained in separate agreements with union representatives at Yorkshire Water and Loop.	8

103.2	The management approach & its components	There are fortnightly meetings with unions to explain any changes to working practices and quarterly forum meetings with unions and directors.	1, 5, 8, 16
GRI 403	Occupational Health & Safety		
403.1	Workers representation in formal joint management-worker health and safety committees	<p>At company level, the highest level of health &amp; safety forum is the Trade Union Health &amp; Safety Forum.</p> <p>The forum meets quarterly and is composed of representations from Yorkshire Water senior management and trade union health and safety representatives. The meeting is jointly chaired by the head of health and safety and a lead trade union health and safety representative. The next level of safety forum is the Business Unit Health &amp; Safety Committee. Colleagues covered by this:</p> <ul style="list-style-type: none"> <li>• Asset Management – 15% of total workforce</li> <li>• Procurement &amp; Contracts – 13% of total workforce</li> <li>• Energy &amp; Recycling – 6% of total workforce</li> <li>• Water Distribution - 21% of total workforce</li> <li>• Water Production – 12% of total workforce</li> <li>• Engineering Reliability – 10% of total workforce</li> <li>• Process &amp; Pumping – 15% of total workforce</li> </ul> <p>The next level of safety forum are our local health &amp; safety forums which covers the entire company.</p> <p>Appendix 4 - Occupational Health &amp; Safety</p>	8
403.2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	<p>ARFS – We understand our impact on the wider environment and act responsibly p33</p> <ul style="list-style-type: none"> <li>• No fatalities.</li> <li>• 19 lost time Injuries</li> <li>• Sickness absence rate of 2.57%.</li> <li>• No occupational diseases reported.</li> </ul> <p>Lost Time Injuries were in the following categories:</p> <ul style="list-style-type: none"> <li>• Lifting &amp; Handling injury</li> <li>• Slip, trip, fall on the same level</li> <li>• Fall from height</li> <li>• Manual handling</li> <li>• Contact with sharp object/tool</li> <li>• Struck, caught against, trapped</li> <li>• Contact with/exposure to harmful or biological substances</li> </ul> <p>Injuries by gender:</p> <ul style="list-style-type: none"> <li>• Male 15 (79%)</li> <li>• Female 4 (21%)</li> </ul>	3, 8

		<p><u>Notes</u></p> <ol style="list-style-type: none"> <li>1. All injuries occurred in the UK.</li> <li>2. Work carried out by contractors is not controlled by Yorkshire Water. In this area there were no fatalities reported.</li> <li>3. All accidents are reported and recorded on our Rivo Safeguard System, however minor. The company only reports on lost time injuries.</li> <li>4. Lost days are reported in calendar days which start the day after any accident.</li> <li>5. First aid injuries are recorded but are not included in the lost time injury rate</li> </ol>	
403.3	Workers with high incidence or high risk of diseases related to their occupation	There is a risk for workers who may encounter sewage on our waste water sites and the waste water network. There are procedures in place to minimise these risks.	3, 8
403.4	Health and safety topics covered in formal agreements with trade unions	The formal agreements with trade unions provide full cover of health and safety topics (100%).	8
103.2	The management approach & its components	<p>ARFS – Health, safety and wellbeing p33                      ARFS – Safety, health and environment committee report p89  <a href="#">Occupational Health &amp; Safety Policy</a></p> <p>The company vision for safety is, ‘Everyone, every day, safe and well.’ It is essential that we work to prevent harm and protect health across all stages of our business operations, environments and communities. This process is managed through our Occupational Health &amp; Safety Management System. We have six key performance indicators for health and safety; 2 for occupational health, 2 for operational safety and 2 for process safety.</p>	1, 5, 8, 16
103.3	Evaluation of the management approach	The process is evaluated via a governance processes which includes audits, inspections and investigations. We operate a fair culture process that evaluates the outcomes of investigations and ensures lessons learned are embedded. The health and safety team strategy is reviewed every April to evaluate the previous year’s performance and then identify priorities for the coming year.	
<b>GRI 404</b>	<b>Training &amp; Education 2016</b>		
404.1	Average hours of training per year per employee	Appendix 5: GRI 404 - Training	4, 5, 8
404.2	Programs for upgrading employee	Appendix 5: GRI 404 - Training	8

	skills and transition assistance programs		
103.2	The management approach & its components	Appendix 5: GRI 404 - Training	1, 5, 8, 16
103.3	Evaluation of the management approach	Appendix 5: GRI 404 - Training	
GRI 405	Diversity & Equal Opportunity 2016		
405.1	Diversity of governance bodies and employees	ARFS – Championing Diversity p34	5, 8
405.2	Ratio of basic salary and remuneration of women to men	Workforce Diversity Report ARFS – Championing Diversity p34	5, 8, 10
103.2	The management approach & its components	<p>ARFS– Championing Diversity p34  <a href="#">Tackling Diversity</a>                      ARFS – Nomination Committee Report p84 &amp; p85                      ARFS – Employees and employment policies p97                      We have a <a href="#">diversity and inclusion policy</a>                      The data we collect is used to look at the disparity in pay between the genders. We do not review this with regards to part time/permanent staff. We address any gender pay gaps by understanding whether the variance is due to employment numbers of women being lower than the men’s and how we can tackle that in the various parts of the business.                      Our diversity and inclusion strategy covers four priority areas: representation, inclusion, capability and customer equality. To support this internally we have a diversity and inclusion steering group which comprises of colleagues from across the business. Within the steering group there are four work streams: gender, ability, ethnicity and lesbian, gay, bisexual, queer and transgender. Each stream has specific aims and objectives to support with the delivery of the strategy. The groups meet on a quarterly basis and update the steering group on progress. We provide the stream leads with a breakdown of diversity data for their respective stream. We have made a commitment to:</p> <ul style="list-style-type: none"> <li>• continue to develop female leaders, this year we have invested in another science, technology, engineering and mathematics (STEM) Forward Ladies development programme for 20 female colleagues.</li> <li>• invest in black and minority ethnic (BME) talent and supporting BME talent into leadership roles, removing barriers and addressing the under representation of colleagues from BME backgrounds.</li> </ul>	1, 5, 8, 16



		<ul style="list-style-type: none"> <li>continue to support neuro diversity within the workplace through the Lighthouse Talent City Supported Internships</li> <li>support disability in the workplace with a business disability forum membership.</li> </ul>	
103.3	Evaluation of the management approach	We have no specific evaluation method for success, however, we are tracking our employment with regard to diversity on a quarterly basis. This allows us to see if any traction is made with the initiatives that we are putting in place. Some initiatives we have started are using a diversity specific job board - to attract diverse backgrounds. We have the Forward Ladies programme which is aimed at supporting women in the business to network and get empowerment to move on in their careers. We are on the 3rd cohort. The previous 2 cohorts have success stories with 80% of the women involved having moved up in rank or moved sideways in their career. They also have a strong support network. We have apprenticeship programmes that engage with young people	
<b>GRI 408</b>	<b>Child Labour 2016</b>		
408.1	Operations and suppliers at significant risk for incidents of child labour	Yorkshire Water operates solely in the UK and the practices deployed for the employment of direct labour are such that child labour does not exist within its workforce. The majority of our supply contracts are with UK or European entities. Our latest supply contracts and purchase order terms oblige all suppliers to comply with the Modern Slavery Act 2015, which includes the abolition of child labour in all its forms. We recognise that our supply chains extend in to emerging economies & low-cost countries where child labour may be present, and we reserve the right to audit at any time.	8, 16
<b>GRI 409</b>	<b>Forced or Compulsory Labour 2016</b>		
409.1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	See above A supplier risk assessment was carried out in 2016 that assessed their level of compliance to the Modern Slavery Act 2015. A programme of contract updates and contract exits has been ongoing since this initial assessment.	8
<b>GRI 412</b>	<b>Human Rights Assessments 2016</b>		
412.1	Operations that have been subject to human rights reviews or impact assessments	ARFS – Working ethically and respecting human rights p33 <ul style="list-style-type: none"> <li>Dignity at work policy and Diversity and Inclusion policies. These cover 100% of the company’s workforce</li> <li>IT security policies ensure that colleagues are provided to a right to a private life and access to a colleague’s computer systems is strictly controlled</li> <li>We recognise 3 Trade Unions – Unite, Unison and GMB and colleagues are free to be a member without fear of discrimination.</li> </ul> Yorkshire Water’s <a href="#">Human Rights</a> policy and <a href="#">Modern Slavery Statement</a>	

412.2	Employee training on human rights policies or procedures	There has been no specific training on Human Rights in this reporting period.	
412.3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	The majority of our supply contracts are with UK or European entities. Our latest supply contracts and purchase order terms oblige all suppliers to comply with the Modern Slavery Act 2015, which includes the abolition of human rights abuse in all its forms. We recognise that our supply chains extend in to emerging economies & low-cost countries where child labour may be present, and we reserve the right to audit at any time. At present we estimate that >90% of our supplier contracts will include the Modern Slavery clause.	
GRI 413	Local Communities 2016		
413.1	Operations with local community engagement, impact assessments, and development programs	ARFS – Supporting communities through charitable giving and volunteering p32 ARFS – Securing customer and stakeholder trust p18 <a href="#">Customer Charter</a> <a href="#">Our Approach to Stakeholder Engagement</a> <a href="#">Complaints and compliments</a> Appendix 6: GRI 413 – Local Communities	
GRI 414	Supplier Social Assessment 2016		
414.2	Negative social impacts in the supply chain and actions taken	ARFS – Working ethically and respecting human rights p33 <a href="#">The Kelda Group Sustainable Supply Chain Policy</a> <a href="#">Become a Supplier</a> Appendix 1: GRI 204, 308, 414 – Procurement practices	5, 8, 16
GRI 416	Customer Health & Safety 2016		
416.1	Assessment of the health and safety impacts of product and service categories	ARFS – A summary of our principal risks p52 APR – Section 3 Appendix 7: GRI 416 - Managing waste water and clean water quality to ensure safety	
416.2	Incidents of non-compliance concerning the health and safety impacts of products and services	<a href="#">Complaints and compliments</a> No incidents Appendix 7: GRI 416 - Managing waste water and clean water quality to ensure safety	16
GRI 418	Customer Privacy 2016		

418.1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	ARFS – A summary of our principal risks p56 - 57 Yorkshire Water takes the security and use of customers' personal data very seriously and is committed to complying with data protection legislation. We have not received any communications with either undertakings or fines from the Information Commissioners Office regarding data breaches. More information about how we protect our customers can be found <a href="#">here</a>	16
GRI 419	Socio-economic Compliance 2016		
419.1	Non-compliance with laws and regulations in the social and economic area	Yorkshire Water had one significant fine in 2018/19 of £733,000 resulting from a fatality at Tadcaster Sewage Treatment Works in July 2015. No other significant fines or other issues arose for the purposes of the question raised.	16

## Appendix 1

### GRI 103, 204, 308, 414 – Procurement practices & Management Approach

#### Our Approach

All expenditure for goods and services is governed by Yorkshire Water's Procurement Rules which detail the rules and regulations attached to any commitment to purchase including authorisation and approval levels. This expenditure is monitored and reported to Procurement, monthly by Governance and Compliance which includes new areas of focus on new contracts/tenders, off contract spend and burn rates on contracts.

The procurement process begins with the completion of a "Sourcing Request" from an area of the business which outlines the business need. The brief is emailed to a central mailbox. The sourcing managers, contract manager and procurement manager review new briefs and allocate to category buyers based on the business need. The category buyers conduct a risk score assessment based on 10 individually weighted criteria from a procurement perspective. This risk score then drives out what level of procurement involvement will take place, it will either take the form of a full EU tender (strategic procurement), a non-EU Tender (Key Stage Advice Procurement) where the Category Buyer will assist the business with a less complex tender process or a fully devolved process where the business unit which submitted the original Sourcing Request carries out the procurement using a suite of documents and guidance notes issued by the procurement department. Our robust processes ensure the appropriate allocation of resource and time to managing any risk for the business from its procurement activities.

Yorkshire Water uses the Achilles Vendor Database (UVDB) or issues a Contract Notice in the Official Journal of the European Union (OJEU) to identify potential suppliers. Achilles is a supplier management system which hosts a pre-qualified database of potential suppliers per identified category and their on-line supplier qualification questionnaires include areas such as corporate social responsibility, environmental management, health & safety, and ethics. Although all suppliers contained on the database complete questionnaires, not all supplier information has been validated or audited by Achilles, this is a further process that we conduct at Request for Information (RFI) stage if required. At Yorkshire Water, we always search for suppliers who have been validated by Achilles.

Yorkshire Water Services (YORKSHIRE WATER) uses SAP Ariba Sourcing to facilitate OJEU tenders. SAP Ariba Sourcing is an intuitive, cloud (web-based) RFX management tool, used to create, execute, and manage sourcing events in compliance with the Utilities Contracts Regulations 2016. YORKSHIRE WATER operates a 3-stage tender process: stage 1 'Request for Information' (RFI), stage 2 'Request for Information compliance' (RFI compliance), and finally stage 3 'Request for Proposal (RFP).

RFI, RFI Compliance and RFP stage questions are tailored appropriately to the business need. For instance, it may not be as appropriate for the RFI questionnaire for IT Software and/or consultancy to be as stringent in its environmental or carbon requirements as those used for energy & fuel, mechanical, electrical, instrumentation & controls & automation goods and services.

RFI, RFI Compliance and RFP stages of any tender process are evaluated against specified criteria including sustainability factors. All our tender questionnaires contain questions about sustainability. After each tender stage (RFI, RFI compliance and RFP), there is an opportunity for bidders to ask questions and receive additional clarification from the buyer. At RFI stage, human rights including Modern Slavery and environmental criteria (specifically accreditation to ISO14001 or equivalent) and biodiversity policies are subject to pass/fail valuation. The RFI stage sets the "minimum requirements" of what YORKSHIRE WATER expects suppliers to be able to deliver. We also include some more detailed questions, for which weighted scoring is applied to each section and a 'what good looks like' scoring methodology for transparency and to guide the supplier. Unsuccessful bidders to the RFI stage of the tender process are notified by letter detailing, section by section, their score and how this compares to the lowest successful bidder. All communications for successful or unsuccessful suppliers follow a process and format and

unsuccessful suppliers are always informed about why they were not successful at any stage from RFI to tender award. Great care is taken to ensure that all processes are transparent and fair, and all communication is facilitated and stored within the messaging centre of Ariba Sourcing.

Sustainability requirements are included in the terms and conditions of contracts through the addition of specific schedules as appropriate to the agreement. Contract management, as a function, measure and monitor the supplier's performance against these requirements. Shortfalls are highlighted as risks and managed either directly with the supplier and/or through and/or with buyers and stakeholders.

Contract management are accountable for implementing contracted suppliers into the business and then, through the life of the contract, ensure that both parties to the Agreement do what they say they will. This is how we ensure that the benefits of a supplier's tender, that has led to their selection, are realised. It also ensures that any risks, such as sustainability risks, that have been mitigated in the contract are managed. The contract performance of actively managed contracts is monitored by the Contract Management Team through regular meetings with the supplier and the business user of the contract. The team also receive and analyse regular Contract Management Reports from the supplier containing data related to the supplier performance against key performance measures. From time to time the team will carry out various audits on suppliers to gain assurance that the contract commercials are being followed and that suppliers' personnel are competent to undertake their activities.

Underpinning the corporate sustainability strategy, each category buyer within Procurement has developed a Procurement Strategy for their specific areas; due to the wide spectrum of product areas there is no "one size fits all" approach so each strategy will have different sustainability considerations.

### **Grievances**

Supplier grievances are managed by the Contract Specialist. If the supplier's representative (Account Manager) and the Contract Specialist cannot come to a collaborative settlement of the grievance, there is an escalation process, up through the Contracts Manager, Head of Procurement and Contracts Management to Director of Procurement. Any supplier grievance relating to the tender process (a supplier challenge) is managed in line with the Utilities Contracts Regulations 2016.

### **Evaluation**

For any process that we run in Procurement and Contract Management, where an issue is identified, it is entered into the Procurement and Contract Management Issue Log. Issues are allocated to the relevant Process Owner and actions to resolve the issue, whilst considering the holistic purpose of the process are completed. The action taken is recorded and a review is carried out after an agreed time to check that the issued has been effectively dealt with.

Environmental and social criteria used to screen new suppliers:

The embedded excel details Environmental and Social assessment criteria used within the RFI. Please note that additional questions can be added depending on the type of goods/services being procured. Comparable questions are also asked as part of the Vendor Risk Management Process.

The intention of our process is that we capture environmental risks of supplier activities in the scoping of tenders and manage the risk through the tender process and by the inclusion of relevant terms and conditions within the contract. Therefore, by the time a supplier is working with us they have demonstrated that they are capable of managing the relevant environmental risks supported by a contract that allows us to use the relevant conditions to manage performance. If a supplier subsequently fails to manage an environmental risk adequately it will trigger a performance management process run by Contract Management. Ultimately this has 2 possible outcomes, most likely, the supplier will improve their performance to manage the risk. If they are not able to do this then they will have to acknowledge this and agree to terminate the contract. If they do not acknowledge this then the only option left is to take the disagreement through a legal settlement.

We have risk assessments carried out at initiation of a procurement. These identify where an environmental or social risk exists. For example, we have worked with the University of Hull to



understand which of our contracted activities are at greatest risk from Modern Slavery. Using this assessment, we are able to apply the relevant assessments and contract conditions to a tender process to mitigate it.

### **GRI 308 and 414**

100% of suppliers are screened for environmental and social criteria. Even if a supplier has not participated in an OJEU tender process, all suppliers go through the Vendor Risk Management (VRM) process before they become a Yorkshire Water vendor.

Because the non-OJEU procurement is decentralised, we are not able to record numbers of suppliers assessed for environmental and/or social impacts or how many suppliers have been identified as having significant actual and potential negative social and/or environmental impacts through this system. This means that we do not have an official record of significant actual and potential negative social and/or environmental impacts identified in the supply chain.

There are no instances where Yorkshire Water have identified suppliers as having significant actual and potential negative social and/or environmental impacts. There are no agreements to improve performance or failure to implement improvement that have led to termination. There are a couple of instances where Yorkshire Water have stopped suppliers from being put on the vendor list for failing the Vendor Risk Management (VRM) but these are before we work with the supplier.

## Appendix 2 - GRI 303 Water & Effluents 2018

### Water abstraction

We abstract water to provide a potable public water supply. Water is abstracted from licenced groundwater, river and reservoir sources, treated to potable water standards and supplied to over 5 million customers in Yorkshire. On average we supply 1300 million litres of potable water per day. All water abstracted is from freshwater supplies. On average 25% of water is abstracted from groundwater supplies and 75% from surface water - 30% from river sources and 45% from impounding reservoir sources. We receive a single surface water (reservoir) third party supply through arrangement with a neighbouring water company (average volume; 50 megalitres per day, maximum 21,500 mega litres per year).

In 2017/18, approximately 205,000 mega litres were abstracted from reservoir sources, 136,000 mega litres from river sources and 114,000 mega litres from groundwater sources. Abstracted volumes are required to comply with abstraction licences issued and regulated by the Environment Agency. These licences prescribe daily and annual abstraction conditions to minimise the impact of abstraction on the aquatic environment. Water abstracted at all sites is metered and the volume reported to the Environment Agency to ensure compliance with abstraction licence conditions.

### Impact assessment

All water companies are required by the Government to produce a Water Resources Management Plan to show how we plan to maintain a secure supply of water to all our customers over the next 25 years. The plan is developed following guidance from the Environment Agency and is reviewed and revised every 5 years.

Our plan incorporates future pressures on water supply and demand due to predicted changes to the climate. It also looks at future changes in population, housing, water use and metering trends in Yorkshire.

The plan is built up of a number of elements to allow us to plan for the future:

- A forecast of future customer water demand, considering future changes in population, housing, water use and metering trends in Yorkshire;
- A forecast of our available water supply incorporating predicted changes to the climate and abstraction reductions required for increased environmental sustainability (see environmental protection below).

Our Water Resources Management Plan ensures that we can continue to meet customer demand in the future with minimum impact on the environment. It can be found [here](#).

### Water related impacts and targets

As part our business planning we have created a long-term strategic direction document. This sets out our 5 Big Goals which have been developed through analysis of future pressures and what our customers and stakeholders have told us.

Our customers have consistently told us that the most important thing to them is a reliable and sustainable supply of high-quality drinking water. The population and economy of Yorkshire are growing, and climate change brings uncertainty over future water supply. Therefore one of our 5 Big Goals is: 'Water Supply - we will always supply you will enough safe water, we will not waste water and always protect the environment'.

### Water quality

Our approach to managing water quality is described in Appendix 6 (Health and Safety). Our key water quality issue is deteriorating catchments, causing increased colour in the water from upland catchments and increasing problems with agricultural use of nitrates and pesticides in lowland catchments. The deteriorating water quality brings associated water treatment and distribution system requirements.

## Water efficiency

Water efficiency is an integral part of water resource planning now and in the future. In our long-term strategy, we set out our plans to take less from the environment, maximise reuse of the water we abstract and reduce water losses including leakage.

Water companies have had a duty to promote the efficient use of water to all customers since 1996, and its importance increases as the risks to water and energy supply increase. By promoting water saving benefits to our customers, reducing our own use of water in the production of potable supplies and treatment of wastewater, and building partnerships we can help keep demand low and reduce our reliance on natural resources.

The key themes of our water efficiency strategy are:

- communicating the water efficiency message to our customers; and
- a continued drive for innovation and best practice to reduce demand for water.

For household customers, we will continue to promote behavioural change in water use and to provide water saving devices through free packs and home audits.

The Water Act 2014 introduced non-household water retail competition in England in April 2017. Although we are no longer directly supplying non-household customers in our region, we still have a responsibility to promote water efficiency to commercial water users. We are looking at new and innovative means of working with this sector to help reduce their water use. This could include working in collaboration with retailers in our region or offering commercial users new services, such as non-potable water supplies from recycled water.

## Environmental protection

The Yorkshire region is not classified as water stressed by the Environment Agency, therefore no water is abstracted from areas with water stress.

Many environmentally damaging abstractions have been addressed through the Environment Agency's Restoring Sustainable Abstraction (RSA) programme which has been in place since 1999.

We have worked in conjunction with the Environment Agency and Natural England to investigate potentially damaging licences identified through the RSA process to confirm impacts and define the scope and extent of solutions. This work, over the last twenty years, leads to two generic results:

- An investigation demonstrates that damage is not occurring, and that no solution is needed. Usually this is because the investigations improve the technical understanding of the hydrology and identify that factors other than our abstraction are the main cause of damage. In these cases, if a solution - a reduction in our abstraction, for example - had been implemented, it would have been at a considerable cost to customers and not delivered any environmental benefit.
- An investigation confirms damage, in which case we have implemented a range of solutions to address the damage. These have included changes in abstraction, hands-off flows, compensation releases and the delivery of physical mitigation measures such as river restoration.

We continue to work with the Environment Agency to ensure our abstractions are sustainable through the ongoing Water Industry National Environment Programme (WINEP). Our 2015-20 business plan includes work to meet good ecological potential (GEP) under WINEP and to address the resulting minor reduction in licensed water abstraction.

## Water Discharge (Waste Water)

Waste water from domestic and commercial properties is treated at our waste water treatment works and the effluent discharged to rivers and seawater. Water treatment works produce effluents as part of their operation, these effluents are discharged to sewer and surface waters.

The quality of the effluents discharged to the environment must comply with strict water quality parameters prescribed by legislation and regulated by the Environment Agency. Limits for substances in the discharges are set based on the specific environmental needs of the receiving waterbodies. For

wastewater treatment works we are required to treat the effluent to reduce the levels of Ammonia, Solids, BOD and in some effluents, Phosphorous in the discharge to levels that prevent environmental harm from the discharge. Control of other substances of concern in wastewater treatment effluents is carried out at source i.e. by setting limits on traders discharging in to the sewer network or actions at national level banning or limiting the use of substances. Water treatment works effluents often contain Chlorine. The effluents are treated to reduce the levels of Chlorine as needed. Discharges to sewer have internally agreed controls to protect the receiving wastewater treatment works and subsequent discharges to the environment. Compliance to discharge limits can be found in the 2019 APR, Section 3B.22. Discharges also occur from the sewer network at times of high rainfall. These discharges are permitted by the Environment Agency and are to protect the sewer network and reduce the risk of flooding. We discharge a total of 654549 megalitres from our activities this is broken down as shown in the table below

		<b>Volume (megalitres)</b>
Water Discharge by destination	Surface Water	589713
	Groundwater	232
	Seawater	65486
	Sewer	18
Total Water Discharge	Freshwater ( $\leq 1,000$ mg/l Total Dissolved Solids)	589948
	Other Water ( $\geq 1,000$ mg/l Total Dissolved Solids)	65486

Discharge volumes from the larger wastewater treatment works and water treatment works are measured and for small sites an estimate has been used. There is currently no method of assessing volumes discharged from storm overflows and so these are not included in the values stated. There are no areas of water stress in the Yorkshire area.

## Appendix 3

### GRI 103, 306 – Waste & Management Approach

Yorkshire Water manages waste and reports it through the ‘% waste diverted from landfill’ Performance Commitment. The company began reporting on this metric in 2015/16 following agreement from customers and our regulator, Ofwat, as part of the Asset Management Plan (AMP) 6 Periodic Review Process. Prior to the Performance Commitment we were managing waste, but it was not reported in the same way.

Information on the different types of waste produced by the company is collated along with details on the proportion of that waste which is recycled or reused and therefore avoids landfill. This is then summarised and reported monthly on the Balance Score Card (BSC) and annually in the Annual Performance Report as the overall percentage of waste which avoids landfill. The process of reporting is strictly governed with detailed procedures, senior manager sign-off and external audit, prior to board approval and publication.

Yorkshire Water has a broad range of different waste streams, to ensure these are being monitored and managed on a regular basis we have waste stream owners who are responsible for understanding the waste stream, disposal routes and reporting the data monthly. These waste stream owners then meet quarterly at a Delivery Assurance Group meeting to monitor performance, share best practice and identify challenges or opportunities to the business.

The business has policies, processes and procedures in place to ensure compliance with waste management and disposal requirements.

We engage with and manage contractors, such as Biffa, to help us collect and dispose of our waste in the most efficient way possible, this means avoiding landfill and exploiting reuse and recycling opportunities for as much of our waste as possible.

We also work with our partners to ensure they are managing the wastes they generate on our behalf. Data on these wastes is included in our annual waste reporting.

Our management approach seeks to provide the following:

- Transparency to our customers on the wastes we produce and how we manage them
- A minimal volume of our waste entering landfill
- Compliance with waste management and disposal regulation
- A cost-effective solution to waste management
- A commitment to moving wastes up the waste hierarchy in an efficient manner
- An incentive to exploring circular economy practices where possible

Our Performance Commitment, ‘% waste diverted from landfill’ means the amount of waste from all Yorkshire Water activities (office, operational or construction) that is recycled or re-used as a percentage of total waste produced.

We have an annual target of diverting more than 95% of our Performance Commitment wastes from landfill and a goal of diverting more than 98% of all wastes each year. We have been able to exceed both of these targets since 2015/16. We manage the delivery of these targets through a cross business Delivery Assurance Group.

The group is made up of subject matter experts and waste stream owners who meet quarterly to discuss best practice, opportunities and challenges with a focus on reducing waste to landfill and using circular economy practices where possible to move wastes up the waste hierarchy.

This group is chaired by the Biosolids Manager. The delivery of performance against our targets has senior manager accountability.

As a business we have been working to deliver projects and ways of working which reduce, reuse and recycle as much as we can. Most of our waste streams have over 90% landfill avoidance. For the few

remaining waste types where we currently have no other option, these wastes are sent to landfill. Areas where we have seen strong performance include:

- Grit washing – In 2016/17 we trialled a grit washing approach where grit collected in skips from our waste water treatment works is centralised at three of our largest waste water treatment works. It is then put through a washing process which cleans the grit. The outputs are wash water which is returned to the inlet of the works, clean grit which can be reused and a small volume of oversized items which have to be landfilled. This trial is now business as usual and in 2018/19 our landfill avoidance increased to 81%.
- Biosolids recycling programme – As a provider of waste water treatment we create sludges which are a by-product of the treatment process. This is 100% recycled and has been for many years. We work closely with the Environment Agency, farmers and our partner Robinsons to collect sludge cake for use, for example, on farmers’ fields who use it as an alternative to chemical fertilisers. The majority of our Biosolids are recycled to agriculture, certified under the Biosolids Assurance Scheme. Material which is used at restoration sites is managed through a detailed Duty of Care procedure to ensure we are compliant with relevant regulations and requirements.
- Scrap metal recycling – a small volume of waste, but nonetheless an important one. We have a scrap metal recycling programme which is managed from our logistic centre. This ensures that all the scrap metal we have is recycled.
- Skips and recycling hubs – we work closely with our partner Biffa to provide recycling hubs on our large sites. This has seen recycling rates increase significantly as colleagues on operational sites have now got easy access to skips to allow them to segregate their waste.
- We have worked with our operational service partners Morrison Utility Services and Amey as well as tip and recycling centres across the region to identify waste types they produce on our behalf to increase reporting accuracy, but also understand the recycling sites and tips with the best recycling rates. We have been able to provide operational teams who work in the highway for us with a prioritised list of tips in their areas and the different recycling rates. This means colleagues can make educated choices about where they tip their waste and will pick places with the highest recycling rates.

As our targets are reported on the company level BSC on a monthly basis and publicly on an annual basis, this requires a robust governance process to evaluate the accuracy and quality of the data collected and reported as a reflection of the way we manage waste as a business.

Each waste stream owner is required to produce a reporting procedure which is signed off by their line manager and then the accountable Senior Manager for the Performance Commitment. Once 12 months of data has been collected the Data Manager will then do a review of the procedure and full year data with the waste stream owner. The final data set is then signed off by the senior manager accountable prior to external audit by our auditors Halcrow. Following audit actions are closed out and there is a final senior manager sign-off prior to Board approval and sign-off before publication in July each year. We also voluntarily report our waste performance to Business in The Community to allow us to benchmark our approach against other companies and industries. Annually we receive suggestions of continuous improvement from Halcrow which we review and address where possible.

Our approach to waste management and performance is audited annually and reviewed to ensure consistency and accuracy of reporting. If we identify additional wastes which have not previously been produced or included, we work to include them and report them transparently.

<b>Total Non-hazardous waste (tonnes)</b>	9,107,816
<b>Landfill (tonnes)</b>	26,691
<b>Reuse / Recycled (tonnes)</b>	9,029,027
<b>Energy recovery (tonnes)</b>	962

We do not produce hazardous waste as standard, it is ad hoc and will be managed by specialist removal and disposal contractors. The total volume of hazardous waste in 2018/19 was 1,690 tonnes.



## Appendix 4

### GRI 103, 403 - Occupational Health and Safety & Management Approach

#### Our Approach

The company Occupational Health & Safety Forum is chaired jointly by the Head of Occupational Health & Safety (OH&S) and the nominated trade union lead safety representative. It is attended quarterly by specific business unit senior leaders and trade union safety representatives from across the business.

#### Purpose:

Shares and reviews company OH&S performance and risk position.

- Reviews any legislation and / or business changes that may impact employee OH&S and determines the need for further consultation and communication.
- Shares learning from significant incidents and injuries and promotes the sharing of best practice across the business.
- Identifies areas which may require corrective actions and interventions to address employee concerns and risks.
- Promotes interest in, enthusiasm and effective communication for OH&S matters.
- Provides a focus for the recognition of achievement by individuals and groups within the [Company](#) and encourage full cooperation.

#### Communication and consultation:

- Relevant information shall be provided to employees, contractors and the public, concerning the effects of the company activities on the safety, health and wellbeing of people and of the work environment.
- There shall be robust consultation and communication with employees to promote involvement in OH&S improvement programmes.
- Safe behaviour shall be emphasised by seeking continual workplace improvement through appropriate implementation of the behavioural safety programme.
- Safety participation programmes shall have a significant element of workforce and contractor involvement.

#### Principles:

- Business Units are required to ensure that effective communication is managed across each operational area.
- Appropriate OH&S committees and / or forums shall be established to facilitate the process of employee and management communication on valid OH&S matters relevant to the business.
- Information shall be provided to employees on intended changes to equipment, processes and organisation, which may affect OH&S.
- Managers shall have adequate processes for communication and consultation with employees and their representatives on changes or intended changes to equipment, processes and organisation, which may affect OH&S.
- All work groups should receive key information on a regular basis commensurate with the hazards and requirements of the work place e.g. toolbox talks, safety briefings etc.
- Records of topics covered, people attending, and actions arising shall be kept.
- Briefings should preferably be carried out by the team's direct management face to face.
- Team briefs should ideally be done with the whole work group together. Communication should aim to be two-way with the team leader checking understanding and prompting discussion by question and answer technique.
- The format and content should be consistent and relevant to the work group briefing and team leaders should preferably use visual aids. Briefs should ideally be short.
- Regular refreshing and review of knowledge is essential to the process of remembering.
- Records should be kept of topics covered, people attending and actions arising.

## Appendix 5

### GRI 103, 404 - Training and Education & Management Approach

All colleagues in Yorkshire Water have equal access to the personal development management process which is integral to how we develop our people. This means that colleagues from diverse backgrounds have the same opportunities to progress as those from white backgrounds. This fact is supported by our dignity at work policies which promote equality and diversity practices. All our managers are trained to understand these and protect their teams accordingly. We align all our learning and development programmes to our human resources policies, including diversity and inclusion and dignity at work. This means all managers are expected to ensure all colleagues regardless of their background have access to learning and development (L&D) opportunities.

#### Total company funded training time 2018-19 by ethnicity and gender in days

Ethnicity	Female	Male	Grand Total
<b>BAME</b>	74	120.5	<b>194.5</b>
<b>Ethnicity Unknown</b>	93	900	<b>993</b>
<b>White</b>	415	2315.5	<b>2730.5</b>
<b>Grand Total</b>	<b>582</b>	<b>3336</b>	<b>3918</b>

The above figures include both classroom and eLearning and include all Kelda employees excluding Loop employees.

We annually review our company wide talent through the Talent Management Process. This annual discussion is designed to understand colleagues' current position within the business and their future talent aspirations in the year and beyond. These discussions are held with managers and employees and we use a consistent template to capture the information. The data is then captured centrally and shared at Leadership and Director level. This ensures the business can identify any gaps it may have in terms of skills shortages and succession, as well as being a great opportunity for individuals to share their aspirations and work with managers to ensure their personal development plans support these. The data collected is cross analysed by gender and ethnicity to ensure equal opportunities are available to all.

We recognise there is a gender imbalance in several business areas. To support the development of high potential female colleagues we have specific development programmes. Due to the success of STEM Forward Ladies programme in 2016 and 2017, a further programme for 20 colleagues was launched in 2018 again with a mentoring aspect. This programme is specifically aimed at female colleagues identified with the potential to move upwards – and not just at a senior level. This positive action enables a real community of learners to network, develop together, receive expert learning and mentoring to improve career progression.

#### Pre-Retirement Training Sessions

To aid our colleagues nearing the end of their careers for retirement we offer pre-retirement training sessions, to assist in their preparation for this period of their life.

#### Total pre-retirement training sessions time 2018-19 by ethnicity and gender in hours

Ethnicity	Female	Male	Grand Total
<b>BAME</b>	15	7.5	<b>22.5</b>
<b>Ethnicity Unknown</b>	0	97.5	<b>97.5</b>
<b>White</b>	187.5	375	<b>562.5</b>
<b>Grand Total</b>	<b>202.5</b>	<b>480</b>	<b>682.5</b>

## **Mentoring**

Our senior managers / functional managers are encouraged to act as a technical or career mentor. We maintain a list of mentors centrally with our L&D team and keep track of the colleagues assigned to them. All Kelda colleagues can complete a simple form and can request a mentor to support them in their specific goals. Based on their development need they are then matched with a suitable mentor. Equally managers and colleagues can put forward their names to be added in the mentor database. The database is kept up to date via an annual review and promotion of the programme to the business. Senior managers are encouraged to be part of this formal mentoring programme.

We currently have 58 established mentoring relationships across the business. During 2018/19 we made 4 additional matches of colleagues to mentors, 3 of whom were female mentees – 75%. This is favourable against the overall number of females (25%) across the whole business. In addition to this, in 2018/19 we have 20 mentors on the STEM Forward Ladies programme.

## **Further Education**

The company is open to the provision of opportunities for individual growth and development within the business context. Further education (FE) is one important element of this. All colleagues are eligible to make an application for assistance under the FE Policy. All applications will be consistently and fairly considered in line with the Equal Opportunities Policy and the business context.

The company will fund FE courses which lead to vocational qualifications relevant to an individual's current role, or a clearly identified future role that the individual can reasonably be expected to fulfil. Vocational courses may include a qualification, membership of appropriate professional bodies (e.g. in accountancy or HR for those working in these areas) or those awarded by bodies such as the Business and Technical Education Council (BTEC). In 2018/19, 20 colleagues received training under the category "Continuous Improvement: Personal Development". These included HNCs, HNDs and BSCHs in engineering, CIPD, NEC and other more role specific qualifications.

## **Evaluation of training**

Before any programme is developed, the L&D team work with the programme sponsor to articulate the desired outcomes for the intervention. Defining the expected outcomes and impact in terms of observable behaviours will inform the process of data collection necessary to decide whether expectations have been met after the L&D intervention has been delivered.

The L&D team offer a wide range of different L&D interventions (i.e. classroom – mandatory, H&S, technical, apprentice and graduate programmes, leadership and management development, individual ad hoc courses and online learning resources), as a result different approaches to evaluation are adopted.

A full evaluation of every intervention is neither desirable nor possible. The decision on the level of evaluation for bespoke programmes is made at the start of a programme, and based on considerations of:

- Cost and duration of a planned L&D intervention: i.e. Pilot programmes that are part of a larger -scale initiative, costly interventions (e.g. programmes of £10k or more), those expected to be repeated regularly and those of 3 or more days duration are considered a priority for full evaluation (levels 1 to 4).
- Scope and scale of the L&D activity under consideration: i.e. Programmes that are expected to be rolled out across the whole or significant parts of the business should be considered a priority for full evaluation.
- Explicit dependency relationship with long term strategy: i.e. Programmes that are directly related to the business priorities, e.g. apprenticeship programmes, leadership and management development, etc.

All planned L&D interventions delivered through the L&D team i.e. mandatory, H&S, technical, leadership and management programmes, will be evaluated to determine whether the learning is being

applied on the job and what valued outcomes are being achieved. This approach will be adopted both for group events and individual ad hoc attendance.

Yorkshire Water evaluates its approach to managing training by adopting some of the principles of Kirkpatrick's (1959) 4-level model for evaluating training programmes. This provides data to answer the following questions about planned L&D interventions:

- Did the learning event meet participant expectations? (Kirkpatrick level 1: reaction)
- Did the intended learning take place? (Kirkpatrick level 2: learning)
- Has the learning been applied to achieve valued results? (Kirkpatrick level 3: behaviour)
- What impact did the application of learning have on business goals? (Kirkpatrick level 4: results)

**Level 1 - Participants' Reaction:** Consistent evaluation forms are used across all planned L&D interventions delivered through the L&D Team. Participants will be asked for the feedback on the extent to which the intervention met their initial expectations and how engaged they were during the intervention. This gives an immediate sense of the quality and effectiveness of a delivery and can be used to identify any areas to investigate, areas for continuous improvement and highlight good practice to replicate.

**Level 2 - Participants' Learning:** Currently relies on anecdotes, participant action plans if these are used e.g. in management development programmes and pass rate data where a test of knowledge and learning exists. Aim to extend this by introducing a process of pre and post course discussions between participants and their managers, participants can be encouraged to identify what they have learnt from the training and be supported by their manager in the transfer of this back into the workplace and provide evidence to the manager that the required learning has taken place

**Level 3 - Participants' Behaviour:** Currently relies on anecdotes, confidence levels recorded in management development and assessments of competence where this exists. Aim to introduce a process whereby participants and their managers are surveyed 3-6 months after the learning intervention to get feedback on the extent to which the delegate has successfully applied the learning in their job, examples of observed behaviour change, etc.

**Level 4 – Business Performance:** The aim here is to focus on transfer of learning evaluation completed 6 months plus after the learning intervention completed, where a full evaluation is agreed as appropriate. Data collection will include:

- What has been the return on expectations?
- What are the valued outcomes that have occurred as a result of applying the learning (intended or incidental), how have these contributed to improvement in the strategic business objectives/performance commitments?
- What was the return on investment? (where appropriate)
- How much of this can be attributed to the learning and development activity in question?
- Key factors that acted as barriers/promoters for the achievement of valued outcomes.
- Actions for continuous improvement in the provision and application of L&D interventions.

## Appendix 6

### GRI 413 – Local Communities

#### Example of engagement on Capital Projects

We deliver many Capital projects across the Yorkshire region and we aim to provide the best possible experience for our customers. Each project is assessed for its impact on local communities, vulnerable groups and the environment. Capital projects are planned and we create a bespoke engagement plan tailored to each project, involving both customers and stakeholders.

Before we engage with the community we need to understand why we are doing the project and the potential impact this will have on the community. Sometimes we undertake investigation work prior to the project starting and this element of work is given the same consideration.

There are many things to consider when thinking about our impact on the community when we are working. Communities can have very different needs and we always endeavour to mitigate and minimise any impact we may have.

Here are just some of the impacts we consider:

- Noise
- Working hours
- Traffic management, road closures, diversions, parking restrictions
- Access
- Changes to the landscape e.g. removal of trees and new buildings
- Interruptions to water supplies
- Dust
- Working on private land
- Trading losses
- Deliveries and vehicle movements

We are pro-active and our engagement and communication methods are carefully tailored for each project and can involve:

- Telephone calls
- Meetings with residents in direct proximity
- Letters
- Community forums and drop in sessions
- Newsletters
- Information leaflets and FAQ documents
- Dedicated web pages for projects
- Visits to schools
- Press releases
- Local radio stations
- Scheme videos
- Signage
- Site hoardings with project information
- Social media communications – Facebook, Twitter
- Stakeholder briefings
- Stakeholder visits and events

We engage with key stakeholders, local groups, councils and parish councils. Sometimes our projects can be lengthy, and we work with these organisations to give something back to the local community in recognition of their support. This might involve volunteering to help with a local event or hosting open events so that the community can visit to see our work. When working near schools we always endeavor to take the opportunity to visit and help educate children about our work. Our representatives often carry our talks and safety poster competitions and promote educational visits to our sites.

When working on our water supply network we always try to avoid interruptions to supply. On the occasions that we need to interrupt supplies we work closely with those impacted and ensure that planned interruptions are managed in accordance with our Customer Charter. At the start of a project we encourage customers to tell us about any specific needs they may have, and we identify any vulnerable customers registered for priority services. Advance warning cards are always hand delivered by our site team, this allows them to also speak to customers directly. We liaise closely with any vulnerable customers providing bottled water and alternative supplies.

Some planned capital work may affect public transport, where roads are closed and buses are diverted. We look to identify any customers that could be impacted and stuck unable to walk to alternative bus stops. In these cases, we would look to provide alternative transport, this might be a shuttle bus service or taxis.

A large number of capital schemes are delivered each year, some are very small schemes which have little impact on customers and others are much larger and can take years to deliver, some examples of the larger schemes ongoing in 2018/19 are given below:

- £70m investment at 16 sites throughout the region to improve the treatment of waste water and reduce the amount of phosphorus returned to watercourses, improving over 196km of water courses.
- Projects delivered across Leeds and Bradford to reduce local flooding issues.
- A £27m scheme to upgrade the Waste Water Treatment Works at Beverley.
- Around £8m of schemes to reduce the impact of flooding on the community in Goole.
- Knostrop Water Treatment Works anaerobic digestion facility with an estimated value of £72m, which will generate enough renewable energy to generate 55% of the site's energy needs.
- Irton Water Treatment Works - £17m scheme to improve the quality of drinking water to Scarborough
- £2m scheme to reduce risk of sewer flooding to local homes in Queensbury, Bradford.
- Completion of a £7million scheme at Gouthwaite reservoir to improve safety.
- Langsett Water Treatment Works - £20m – to improve drinking water quality.
- Dronfield Waste Water Treatment Works - £25million project to ensure that we can continue to treat the area's waste water effectively and minimise our impact on the local environment.
- Lundwood Waste Water Treatment Works, Barnsley - £20million scheme to ensure we can continue to treat the area's waste water effectively and minimise our impact on the local environment.
- Bolton Upon Dearne Waste Water Treatment Works - £12million project involves the construction of a new inlet works, along with a new treatment process. The new treatment process will greatly improve the quality of water being released back into the River Dearne, bringing about significant environmental benefits.



## Appendix 7

### GRI 103, 416 - Customer Health and Safety & Management Approach

#### Managing water quality to ensure safety

The purpose of our approach to managing water quality is the delivery to customers of safe, great tasting water, the minimisation of risks to water quality and compliance with regulations.

Water quality is managed at several levels and by several teams within the business

At the front line we have:

- Raw Water Technicians, responsible for ensuring the best possible water comes from our catchments to our water treatment works.
- WTW process engineers who operate the WTWs to our policies & procedures, assisted by water quality scientists who advise them.
- Our Water Networks Team who operate the pipes which move water around, assisted by water quality scientists who advise them.
- Our sampling team who monitor the quality of water from source to tap.
- Our control room teams who have an overview of all systems.

At a supervisory level we have support to all these teams and at management team level – each of the areas are represented by suitably senior and experienced managers. At a planning level, we have Asset Management team who support operational teams by providing investment to enhance or provide significant capital maintenance to ensure plant and equipment continue to deliver service.

At the strategic level we have an Asset Strategy Team who support the business by understanding long-term risks to performance and compliance and put in place investment plans to ensure sustained or improved performance as part of periodic reviews. Responsibility is held at a number of levels, from daily site briefings through to quarterly reviews between leadership teams and their directors.

There are a range of policies related to the delivery of water quality – these are generally held within the Integrated Management System and provide the guidance to teams in to allow delivery of our objectives. We have performance commitments which are part of our agreement with customers made at the last Price Review – PR14. The main commitment for water quality is for Mean Zonal Compliance (MZC) – performance for 2017 is given in the Annual Performance Report.

There is also a performance commitment for customer contacts about water quality. All these are reported on the Company's performance zone and tracked by management teams. We also review our performance with Drinking Water Inspectorate (DWI) who comment on this in their quarterly reports.

Goals and targets are generally subsidiary to commitments but are linked to their delivery. To aid this, all water quality failures are reported around the business via an operational events reporting system. This also records each failure on the Fail Detail file which brings the data together along with an example of a production and microbiological and aesthetic parameter water supply zone failure report. Each failure is reported to the DWI on a monthly basis which includes a company review of the circumstances, follow-up action taken and any further action proposed.

Water quality is covered by the company Drinking Water Safety Planning (DWSP) process – a source to tap approach to managing risk to public health, water quality compliance and customer acceptability. The outcomes from this process are shared with DWI on a monthly basis who may require action to be taken if they are not confident in YORKSHIRE WATER's management of risk.

We evaluate our approach to managing water quality, through scorecards, management review and DWSP. This can be seen in individual operational decisions, through maintenance activity targeted at areas of concern, through to the Asset Management Plan cycle investment planning by the company. Adjustments to our approach could include the re-deployment of investment to deal with areas of compliance such as the additional money allocated to service reservoir compliance a few years ago.

The DWI are unlikely to pursue non-compliance by legal means; these situations are managed by their enforcement process which would require the Company to give a legally binding Undertaking or Improvement Notice to restore water quality if there was an on-going risk.

The area where DWI are more likely to resort to legal sanction is in relation to water quality impacting operational events. In such cases we produce a report on the circumstances of the Event and actions taken to protect customers which we provide to DWI, Local Authorities, Public Health England and CC Water.

Having reviewed our report and made any investigations of their own DWI may:

- Close the Event
- Close the event with recommendations for further action
- Issue and Improvement Notice to eliminate future risk, or
- Proceed with legal action against the Company

The table below shows the Events reported by the Company and their current status; we have no indication that any are likely to proceed to legal action at this time, but some are still open for investigation.

Events in 2018	31
Events Class 3 and above in 2018	14
Events with Corrective Actions in 2018	5
Number of Recommendations in 2018	19
Cumulative ERI Score in 2018	58.290

Description	Date	Classification	Stage	YW Actions	Comments	Recommendation	Event with Corrective Action	Provisional ERI Score
Huddersfield Media Interest	05/01/2018	3. Significant	Closed	No	Yes	No	No	0.054
Bramham - Burst and Discolouration to Supplies	09/01/2018	3. Significant	Closed	NYA	Yes	1	No	0.456
Ingbirchworth WTW - Elevated pH	12/01/2018	3. Significant	Closed	NYA	Yes	2	No	1.829
Eccleshill Adventure Playground - Blue Water - Do Not Drink	24/01/2018	1. Not Significant	Closed	No	No	No	No	0.003
Stocksbridge, Sheffield - Burst and Discolouration to Supplies	18/02/2018	2. Minor	Closed	No	No	No	No	0.143
Lee St Hull - Blue Water - Do Not Drink	28/02/2018	1. Not Significant	Closed	No	No	No	No	0.000
Old Syndale, Normanton - Burst and Contamination	02/03/2018	2. Minor	Closed	No	No	No	No	0.000
Graincliffe WTW - Elevated pH	18/03/2018	3. Significant	Closed	NYA	Yes	1	No	0.355
Ripponden Discolouration to Supplies	23/03/2018	3. Significant	EAL Update Sent	NYA	NYA	2	1	1.749
Hyde Park, Leeds - Discolouration to Supplies	11/04/2018	4. Serious	EAL Update Sent	NYA	NYA	3	1	0.073
Chellow Heights WTW - Loss of Chlorination	17/04/2018	3. Significant	Closed	No	No	No	No	6.030
Guiseley - Blue Water - Do Not Drink	26/04/2018	1. Not Significant	Closed	No	No	No	No	0.000
Armley, Leeds - Burst and Discolouration to Supplies	18/06/2018	2. Minor	Closed	No	No	No	No	1.345
Doncaster Loss of Supply and Discolouration	22/06/2018	3. Significant	EAL Update Sent	NYA	NYA	2	No	7.367
Langsett Loss of Chlorination.	24/06/2018	3. Significant	EAL Update Sent	NYA	NYA	NYA	1	0.000
Hull Taste and Odour - Media Interest	13/07/2018	1. Not Significant	Closed	No	No	No	No	0.000
Huddersfield - Blue Water - Do Not Drink	16/07/2018	1. Not Significant	Closed	No	No	No	No	0.000
Hull and Holderness Discolouration to Supplies	27/07/2018	4. Serious	EAL Update Sent	NYA	NYA	3	No	19.291
Micklefield Solvent Odour - Do Not Drink	30/07/2018	2. Minor	Closed	No	No	No	No	0.000
Balby, Doncaster - Blue Water - Do Not Drink	01/08/2018	1. Not Significant	Closed	No	No	No	No	0.000
Burley in Wharfedale - Solvent Odour - Do Not Drink	21/08/2018	2. Minor	Closed	No	No	No	No	0.001
Boroughbridge - Discolouration.	31/08/2018	4. Serious	EAL Update Sent	NYA	NYA	1	No	0.335
Skelton-in-Ure - Solvent Odour - Do Not Drink	04/09/2018	2. Minor	Closed	No	No	No	No	0.000
Mytholmroyd loss of supply and discolouration to Supplies	05/09/2018	4. Serious	EAL Update Sent	NYA	NYA	1	1	14.016
Stepney Hull - Blue Water - Do Not Drink	07/09/2018	1. Not Significant	Closed	No	No	No	No	0.001
Sharpe Howe SRE - E. coli detection	28/09/2018	3. Significant	EAL Received	No	Yes	3	1	0.109
Wilberfoss - Diesel Taste and Odour - Do Not Drink	12/10/2018	1. Not Significant	Closed	No	No	No	No	0.000
Sculcoates, Hull - Burst and Discolouration to Supplies	24/10/2018	2. Minor	Closed	No	No	No	No	0.045
Town Moor Avenue, Doncaster - Blue Water - Do Not Drink	31/10/2018	1. Not Significant	Closed	No	No	No	No	0.000
Doncaster Loss of Supply	07/11/2018	3. Significant	DWI Queries Response Sent	NYA	NYA	NYA	NYA	5.085
Non-polar Pesticides Regulatory Analysis Issue	20/12/2018	2. Minor	Closed	No	No	No	No	0.000

The following tables detail our compliance with UK and European standards for drinking water quality.

Report Date Range: For the whole year 2018

Table YKS 1: Quality of water leaving service treatment works - European Standards

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests Failed	1 percentile (representing a minimum)	99 percentile (representing a maximum)	No. of works with failures
Nitrite (Total)	A013B	0.1 mg NO2/l	2,230	0	0.002	0.01069	0
<b>Totals:</b>			<b>2,230</b>	<b>0</b>			

Table YKS 2: Quality of water leaving service treatment works - National Standards

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests Failed	1 percentile (representing a minimum)	99 percentile (representing a maximum)	No. of works with failures
E coli (faecal coliforms Confirmed)	C002	0 number/100 ml	14,098	0	0	0	0
Total Coliforms (Confirmed)	C001	0 number/100 ml	14,098	3	0	0	3
<b>Totals:</b>			<b>28,196</b>	<b>3</b>			

Table YKS 3: Quality of water leaving service treatment works - Additional Monitoring Requirements

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests exceeding specification	1 percentile (representing a minimum)	99 percentile (representing a maximum)
Colony Counts After 3 Days At 22øc (Colony Counts)	C007	No abnormal change	14,098	-n/a	0	3
Residual Disinfectant - Free	C009	No abnormal change	14,099	-n/a	0.03	0.95
Residual Disinfectant - Total	C010	No abnormal change	14,099	-n/a	0.12	1.05
Turbidity - Indicator	A002A	1 nephelometric turbidity units	14,098	0	0.07	0.41
<b>Totals:</b>			<b>56,394</b>	<b>0</b>		

Table YKS 4: Quality of water leaving service reservoirs - National Standards

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests Failed	1 percentile (representing a minimum)	99 percentile (representing a maximum)	No. of reservoirs failing standard
E coli (faecal coliforms Confirmed)	C002	0 number/100 ml	17,696	0	0	0	0
Total Coliforms (Confirmed)	C001	0 number/100 ml	17,696	4	0	0	0
<b>Totals:</b>			<b>35,392</b>	<b>4</b>			

Table YKS 5: Quality of water leaving service reservoirs - Additional Monitoring Requirements

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests exceeding specification	1 percentile (representing a minimum)	99 percentile (representing a maximum)
Colony Counts After 3 Days At 22øc (Colony Counts)	C007	No abnormal change	17,694	-n/a	0	28
Residual Disinfectant - Free	C009	No abnormal change	17,696	-n/a	0.01	0.78
Residual Disinfectant - Total	C010	No abnormal change	17,696	-n/a	0.06	0.86
<b>Totals:</b>			<b>53,086</b>	<b>0</b>		

Table YKS 6: Quality of water leaving bulk supply points - European Standards

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests Failed	1 percentile (representing a minimum)	99 percentile (representing a maximum)	No. of supply points with failures
Boron	D005A	1 mg B/l	116	0	0.005387	0.056402	0
Cyanide (Total)	B003	50 µg CN/l	116	0	< 0.7	1.366	0
Fluoride (Total)	A027	1.5 mg F/l	116	0	0.02	0.0983	0
Mercury (Total)	B005	1 µg Hg/l	116	0	< 0.02	< 0.05	0
Pesticides (Total by Calculation)	B010	0.5 µg/l	116	0	0	0.0843	0
Pesticides 1,1,1-trichloro-2,2-ethane pp'-DDT	P125	0.1 µg/l	116	0	< 0.002	< 0.003	0
Pesticides 1,1-dichloro-2,2-bis-ethane pp'-DDE	P124	0.1 µg/l	116	0	< 0.001	< 0.003	0
Pesticides 2,4-D	P020	0.1 µg/l	116	0	< 0.003	0.006	0
Pesticides 2,4-DB	P082	0.1 µg/l	116	0	< 0.004	< 0.006	0
Pesticides 2,4,5-T	P076	0.1 µg/l	116	0	< 0.004	< 0.005	0
Pesticides Aldrin	P002	0.03 µg/l	116	0	< 0.00134	< 0.003	0
Pesticides Atrazine	P004	0.1 µg/l	116	0	< 0.001	< 0.002	0
Pesticides Bentazone	P006	0.1 µg/l	116	0	< 0.001	< 0.002	0
Pesticides Bromacil	P086	0.1 µg/l	116	0	< 0.003	< 0.003	0
Pesticides Bromoxynil	P008	0.1 µg/l	116	0	< 0.003	< 0.003	0
Pesticides Carbetamide	P010	0.1 µg/l	116	0	< 0.002	0.005	0
Pesticides Chlorpropham	P016	0.1 µg/l	116	0	< 0.003	< 0.003	0
Pesticides Chlorpyrifos (Chlorpyrifos Ethyl)	P017	0.1 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Chlortoluron	P014	0.1 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Clomazone	P246	0.1 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Clopyralid	P018	0.1 µg/l	116	0	< 0.003	0.02383	0
Pesticides Cyanazine	P092	0.1 µg/l	116	0	< 0.001	< 0.002	0
Pesticides Cypermethrin	P094	0.1 µg/l	116	0	< 0.002	< 0.01296	0
Pesticides Cyproconazole	P207	0.1 µg/l	116	0	< 0.001	< 0.002	0
Pesticides Diazinon	P024	0.1 µg/l	116	0	< 0.001	< 0.003	0
Pesticides Dicamba	P025	0.1 µg/l	116	0	< 0.003	< 0.004	0
Pesticides Dichlobenil	P098	0.1 µg/l	116	0	< 0.001	< 0.003	0
Pesticides Dichlorodiphenyldichloroethane pp'-DDD TDE	P123	0.1 µg/l	116	0	< 0.00117	< 0.003	0
Pesticides Dichlorodiphenyldichloroethyle op'-DDE	P115	0.1 µg/l	116	0	< 0.00117	< 0.003	0
Pesticides Dichlorprop	P026	0.1 µg/l	116	0	< 0.004	< 0.005	0
Pesticides Dieldrin	P028	0.03 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Difencnazole	P247	0.1 µg/l	116	0	< 0.002	< 0.002	0
Pesticides Diflufenican	P157	0.1 µg/l	116	0	< 0.002	< 0.004	0
Pesticides Diuron	P032	0.1 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Epoxyconazole	P217	0.1 µg/l	116	0	< 0.001	< 0.002	0
Pesticides EPTC	P035	0.1 µg/l	116	0	< 0.003	< 0.006	0
Pesticides Flufenacet	P230	0.1 µg/l	116	0	< 0.002	0.01432	0
Pesticides Fluroxypyr	P040	0.1 µg/l	116	0	< 0.003	0.00766	0
Pesticides Flurtamone	P248	0.1 µg/l	116	0	< 0.001	< 0.002	0
Pesticides Flusilazole	P159	0.1 µg/l	116	0	< 0.001	< 0.002	0
Pesticides Flutriafol	P039	0.1 µg/l	116	0	< 0.001	< 0.002	0
Pesticides Gamma-HCH (Lindane)	P041	0.1 µg/l	116	0	< 0.001	< 0.003	0
Pesticides Heptachlor	P043	0.03 µg/l	118	0	< 0.00119	< 0.002	0
(Heptachlor Epoxide)	P044	0.03 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Imazapyr	P160	0.1 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Ioxynil	P049	0.1 µg/l	116	0	< 0.003	< 0.003	0
Pesticides Isoproturon	P048	0.1 µg/l	116	0	< 0.002	< 0.002	0
Pesticides Linuron	P051	0.1 µg/l	116	0	< 0.002	< 0.007	0
Pesticides MCPA 4-chloro-o-tolyloxyacetic acid	P054	0.1 µg/l	116	0	< 0.003	0.00915	0
Pesticides Mecoprop-P	P249	0.1 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Metaldehyde	P226	0.1 µg/l	116	0	< 0.003	0.03466	0
Pesticides Metazachlor	P203	0.1 µg/l	116	0	< 0.002	0.003	0
Pesticides Monuron	P113	0.1 µg/l	116	0	< 0.002	< 0.002	0
Pesticides op'-DDD (TDE)	P114	0.1 µg/l	116	0	< 0.00117	< 0.003	0
Pesticides Oxadixyl	P154	0.1 µg/l	116	0	< 0.003	< 0.005	0
Pesticides Pendimethalin	P118	0.1 µg/l	116	0	< 0.002	0.003	0
Pesticides Propachlor	P126	0.1 µg/l	117	0	< 0.001	< 0.002	0
Pesticides Propham	P067	0.1 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Propiconazole	P068	0.1 µg/l	116	0	< 0.002	< 0.003	0
Pesticides Propyzamide	P071	0.1 µg/l	116	0	< 0.002	0.0263	0
Pesticides Prosulfocarb	P243	0.1 µg/l	116	0	< 0.002	< 0.002	0
Pesticides Quinmerac	P244	0.1 µg/l	116	0	< 0.001	0.01566	0
Pesticides Simazine	P073	0.1 µg/l	116	0	< 0.001	< 0.003	0
Pesticides Tri-allate	P079	0.1 µg/l	116	0	< 0.00117	< 0.003	0
Pesticides Trichloro-2(2chlorophenyl)2eth op'-DDT	P116	0.1 µg/l	117	0	< 0.00118	< 0.003	0
Pesticides Triclopyr	P131	0.1 µg/l	116	0	< 0.003	< 0.009	0
Pesticides Trietazine	P132	0.1 µg/l	116	0	< 0.001	< 0.003	0
<b>Totals:</b>			<b>7,776</b>	<b>0</b>			

Table YKS 8: Quality of water leaving bulk supply points - Additional Monitoring Requirements

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests exceeding specification	1 percentile (representing a minimum)	99 percentile (representing a maximum)
Chloride	D002A	250 mg Cl/l	116	0	7.834	45.827
(Confirmed)	C004A	0 number/100 ml	5,170	2	0	0
Total Organic Carbon	A017	No abnormal change	116	-n/a	0.285	2.5
<b>Totals:</b>			<b>5,402</b>	<b>2</b>		

Table YKS 9: Quality of water at consumer's tap (zones) - European Standards

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests Failed	1 percentile (representing a minimum)	99 percentile (representing a maximum)	No. of zones failing standard
1,2-Dichloroethane (Total)	F001	3 µg/l	565	0	< 0.07	< 0.1	0
Antimony	B008A	5 µg Sb/l	520	0	< 0.04	< 0.25	0
Arsenic (Total)	B001A	10 µg As/l	520	0	0.07	1.6916	0
Benzene (Total)	F002	1 µg/l	568	0	< 0.02	< 0.07	0
Benzo[a]Pyrene (Total)	D007	0.01 µg/l	528	0	< 0.00022	< 0.00032	0
Boron	D005A	1 mg B/l	400	0	0.0071207	0.050973	0
Bromate	F003	10 µg BrO3/l	520	0	< 0.1	2.9	0
Cadmium (Total)	B002	5 µg Cd/l	520	0	< 0.006	0.04753	0
Chromium (Total)	B004	50 µg Cr/l	520	0	< 0.09	0.9669	0
Copper (Total)	A024A	2 mg Cu/l	520	0	0.0006	0.22922	0
Cyanide (Total)	B003	50 µg CN/l	384	0	< 0.7	< 1.7	0
E coli (faecal coliforms Confirmed)	C002	0 number/100 ml	12,951	1	0	0	1
Enterococci (Confirmed)	C003	0 number/100 ml	521	0	0	0	0
Fluoride (Total)	A027	1.5 mg F/l	400	0	0.03	0.1599	0
Lead (10 - will apply 25.12.2013)	B007B	10 µg Pb/l	520	2	< 0.02	7.153	2
Mercury (Total)	B005	1 µg Hg/l	384	0	< 0.02	< 0.05	0
Nickel (Total)	B006A	20 µg Ni/l	520	2	0.17	7.839	2
Nitrate (Total)	A012	50 mg NO3/l	1,068	0	1.11	41.3	0
Nitrite - Consumer's Taps	A013A	0.5 mg NO2/l	1,068	0	< 0.002	0.27562	0
Nitrite/Nitrate formula	A013C	1 mg NO2/l	1,068	0	< 0.37	0.83	0
Pesticides (Total by Calculation)	B010	0.5 µg/l	384	0	0	0.1254	0
Pesticides 1,1,1-trichloro-2,2-ethane pp'-DDT	P125	0.1 µg/l	384	0	< 0.002	< 0.01	0
Pesticides 1,1-dichloro-2,2-bis-ethane pp'-DDE	P124	0.1 µg/l	384	0	< 0.001	< 0.0033	0
Pesticides 2,4-D	P020	0.1 µg/l	384	0	< 0.003	0.022	0
Pesticides 2,4-DB	P082	0.1 µg/l	384	0	< 0.004	< 0.006	0
Pesticides 2,4,5-T	P076	0.1 µg/l	384	0	< 0.004	< 0.005	0
Pesticides Aldrin	P002	0.03 µg/l	385	0	< 0.003	< 0.00468	0
Pesticides Atrazine	P004	0.1 µg/l	384	0	< 0.001	0.03815	0
Pesticides Bentazone	P006	0.1 µg/l	384	0	< 0.001	0.01345	0
Pesticides Bromacil	P086	0.1 µg/l	384	0	< 0.003	< 0.003	0
Pesticides Bromoxynil	P008	0.1 µg/l	384	0	< 0.003	< 0.003	0
Pesticides Carbetamide	P010	0.1 µg/l	384	0	< 0.002	0.006	0
Pesticides Chlorpropham	P016	0.1 µg/l	384	0	< 0.003	< 0.003	0
Pesticides Chlorpyrifos (Chlorpyrifos Ethyl)	P017	0.1 µg/l	384	0	< 0.002	< 0.003	0
Pesticides Chlortoluron	P014	0.1 µg/l	384	0	< 0.002	< 0.003	0
Pesticides Clomazone	P246	0.1 µg/l	384	0	< 0.002	< 0.003	0
Pesticides Clopyralid	P018	0.1 µg/l	384	0	< 0.003	0.0216	0
Pesticides Cyanazine	P092	0.1 µg/l	384	0	< 0.001	< 0.002	0
Pesticides Cypermethrin	P094	0.1 µg/l	385	0	< 0.002	< 0.00398	0
Pesticides Cyproconazole	P207	0.1 µg/l	384	0	< 0.001	0.003	0
Pesticides Diazinon	P024	0.1 µg/l	384	0	< 0.001	< 0.003	0
Pesticides Dicamba	P025	0.1 µg/l	384	0	< 0.003	< 0.004	0
Pesticides Dichlobenil	P098	0.1 µg/l	385	0	< 0.001	< 0.00328	0
Pesticides Dichlorodiphenyldichloroethane pp'-DDD TDE	P123	0.1 µg/l	385	0	< 0.002	< 0.00398	0
Pesticides Dichlorodiphenyldichloroethyle op'-DDE	P115	0.1 µg/l	384	0	< 0.002	< 0.00405	0
Pesticides Dichloroprop	P026	0.1 µg/l	384	0	< 0.004	< 0.005	0
Pesticides Dieldrin	P028	0.03 µg/l	385	0	< 0.002	< 0.00468	0
Pesticides Diflufenican	P247	0.1 µg/l	384	0	< 0.002	< 0.002	0
Pesticides Diflufenican	P157	0.1 µg/l	384	0	< 0.002	< 0.004	0
Pesticides Diuron	P032	0.1 µg/l	384	0	< 0.002	< 0.003	0
Pesticides Epoxyconazole	P217	0.1 µg/l	384	0	< 0.001	< 0.002	0
Pesticides EPTC	P035	0.1 µg/l	384	0	< 0.003	< 0.006	0
Pesticides Flufenacet	P230	0.1 µg/l	384	0	< 0.002	0.016	0
Pesticides Fluroxypyr	P040	0.1 µg/l	384	0	< 0.003	0.006	0
Pesticides Flurtamone	P248	0.1 µg/l	384	0	< 0.001	< 0.002	0
Pesticides Flusilazole	P159	0.1 µg/l	384	0	< 0.001	< 0.002	0
Pesticides Flutriafol	P039	0.1 µg/l	384	0	< 0.001	0.002	0
Pesticides Gamma-HCH (Lindane)	P041	0.1 µg/l	384	0	< 0.001	0.0033	0
Pesticides Heptachlor	P043	0.03 µg/l	386	0	< 0.002	< 0.00304	0
(Heptachlor Epoxide)	P044	0.03 µg/l	385	0	< 0.002	< 0.0107	0
Pesticides Imazapyr	P160	0.1 µg/l	384	0	< 0.002	< 0.003	0
Pesticides Ioxynil	P049	0.1 µg/l	384	0	< 0.003	< 0.003	0
Pesticides Isoproturon	P048	0.1 µg/l	384	0	< 0.002	< 0.002	0
Pesticides Linuron	P051	0.1 µg/l	384	0	< 0.002	< 0.007	0
Pesticides MCPA 4-chloro-o-toloxoacetic acid	P054	0.1 µg/l	384	0	< 0.003	0.0219	0
Pesticides Mecoprop-P	P249	0.1 µg/l	384	0	< 0.002	0.008	0
Pesticides Metaldehyde	P226	0.1 µg/l	384	0	< 0.003	0.0416	0
Pesticides Metazachlor	P203	0.1 µg/l	384	0	< 0.002	0.01315	0
Pesticides Monuron	P113	0.1 µg/l	384	0	< 0.002	0.002	0
Pesticides op'-DDD (TDE)	P114	0.1 µg/l	384	0	< 0.00185	< 0.00405	0
Pesticides Oxadixyl	P154	0.1 µg/l	384	0	< 0.003	< 0.005	0
Pesticides Pendimethalin	P118	0.1 µg/l	384	0	< 0.002	0.0033	0
Pesticides Propachlor	P126	0.1 µg/l	384	0	< 0.001	< 0.002	0
Pesticides Propham	P067	0.1 µg/l	384	0	< 0.002	0.00315	0
Pesticides Propiconazole	P068	0.1 µg/l	384	0	< 0.002	< 0.003	0
Pesticides Propyzamide	P071	0.1 µg/l	384	0	< 0.002	0.02515	0
Pesticides Prosulfocarb	P243	0.1 µg/l	384	0	< 0.002	< 0.002	0
Pesticides Quinmerac	P244	0.1 µg/l	384	0	< 0.001	0.01915	0
Pesticides Simazine	P073	0.1 µg/l	384	0	< 0.001	0.006	0
Pesticides Tri-allate	P079	0.1 µg/l	384	0	< 0.002	< 0.003	0
Pesticides Trichloro-2(2chlorobenzyl)2eth op'-DDT	P116	0.1 µg/l	385	0	< 0.002	< 0.01	0

Table YKS 10: Quality of water at consumer's tap (zones) - National Standards

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests Failed	1 percentile (representing a minimum)	99 percentile (representing a maximum)	No. of zones failing standard
Aluminium (Total)	A021	200 µg Al/l	4,177	2	3.21	41.922	2
Colour	A001	20 mg/l Pt/Co scale	4,177	0	< 1	2.3	0
Iron (Total)	A022	200 µg Fe/l	4,177	15	< 0.7	92.576	12
Manganese (Total)	A023	50 µg Mn/l	4,177	1	< 0.14	6.4922	1
Odour	A003	0 Dilution number	4,178	6	0	0	6
Sodium (Total)	A009	200 mg Na/l	520	0	6.2031	37.353	0
Taste (Taste Quant)	A004	0 Dilution number	4,178	0	0	0	3
Tetrachloromethane (Total)	D008	3 µg/l	558	0	< 0.02	< 0.14	0
Turbidity	A002	4 nephelometric turbidity units	4,177	0	0.07	0.43	0
		<b>Totals:</b>	<b>30,319</b>	<b>27</b>			

Table YKS 11: Quality of water at consumer's tap (zones) - Additional Monitoring Requirements

Parameter Name	Parameter Code	Prescribed Concentration or Value	Total Number of Tests	Tests exceeding specification	1 percentile (representing a minimum)	99 percentile (representing a maximum)
Ammonium (Total)	A014	0.5 mg NH <sub>4</sub> /l	4,177	0	0.004	0.194
Chloride	D002A	250 mg Cl/l	400	0	8.901	54.998
Coliform Bacteria (Indicator)	C001A	0 number/100 ml	12,951	21	0	0
Colony Counts After 3 Days At 22°C (Colony Counts)	C007	No abnormal change	4,178	-/a	0	12
Conductivity (Electrical Conductivity)	D001	2500 µS/cm	4,177	0	117	699
Gross Alpha	F004	0.1 Bq/l	56	3	< 0.019	0.107
Gross Beta	F005	1 Bq/l	56	0	0.035	0.117
Hydrogen ion (pH) - Indicator (Hydrogen ion) (pH)	A006	6.5 - 9.5 pH Value	4,177	0	7.01	8.1022
Residual Disinfectant - Free	C009	No abnormal change	12,954	-/a	0.01	0.71
Residual Disinfectant - Total	C010	No abnormal change	12,954	-/a	0.07	0.81
Sulphate	A007	250 mg SO <sub>4</sub> /l	520	0	16.684	136.58
Total Organic Carbon	A017	No abnormal change	400	-/a	0.5	2.699
		<b>Totals:</b>	<b>57,000</b>	<b>24</b>		

## Managing waste water quality to ensure safety

We operate over 600 Waste Water Treatment Works, designed to treat expected sewage volumes and meet the standards set by the Environment Agency. This helps us to prevent pollution and protect sanitation and customer health. Whilst we strive ensure that there are no pollution incidents from waste water management, we do have some failing works.

The management of waste water quality operates at many levels, from the day to day setting and delivery of maintenance plans through performance understanding and investigation / intervention which may range from operational mitigation through to longer term capital investment. The performance is tracked at various levels from overall performance commitment through to site performance. The purpose of the management approach is to achieve the required wastewater treatment works performance whilst also achieving company targets for CAPEX and OPEX spend.

Our goals and targets are linked to the commitments above. Whilst we strive to achieve zero failing works, we set an upper target for failing works which ensures we achieve the overall commitments. We have a number of other targets relating to the number of sites at various risk levels, and this is used to understand whether the normal processes are achieving the required performance or whether we need to enter into an escalated management approach. In escalation, dedicated resources are brought in from supporting functions including tankering and maintenance to ensure efforts are focused on the highest priorities.

There are numerous policies in place covering the operation and maintenance of sites as well as the compliance monitoring and escalation procedures. There are two main high-level commitments. With OFWAT we have a measure which assesses the stability and reliability of the whole service (wastewater above ground). This has 3 sub-measures which cover discharge permit compliance, the population equivalent of any sites which breach their lookup table permit, and the number of reactive equipment failures. The main aim of OFWAT targets is to remain stable compared to previous performance. Our target is to operate within a band between 0 and 8 failing works.



With the Environment Agency (EA) we have a set of measures which compare companies across a range of environmental measures. This has a specific sub measure relating to discharge permit compliance, which covers discharges from both waste water treatment works (WWT) and wastewater treatment works (WWT). The measure has a set of thresholds and assesses our performance as Red/Amber/Green. ~~In order to~~To achieve Green, we need to achieve 2 failing works or less, a level which has not been achieved to date. To achieve Amber, we need to achieve between 3 and 9 failing works and this is typically where we perform. The various measures are combined to give an overall rating of the company. In 2018/19 we achieved 2\* with a high number of serious pollution incidents. We are aiming to achieve 4\* which is classed as 'Leading'.

There are many teams with responsibilities within the process, ranging from Service Delivery, who operate and maintain assets, through to Asset Management, who manage medium and longer-term investment to ensure the overall asset base remains safe and fit for purpose. The processes involved allow for understanding of performance issues and the generation of projects to address these.

The process is overseen by a Delivery Assurance Group – this group reviews overall performance and whether any changes are required. This is an ongoing process on a monthly basis.

The most recent change has been a variation to the escalation process. Previously this was based on the total number of triggers across all sites. We found that we were sometimes escalating when the actual risk was not that great due to a high number of low-level triggers. Following an analytical review, we changed the trigger to be based on the number of sites with triggers above a certain value. It also accounted for how long we had been above a target value. This has reduced unnecessary escalation.

There were zero Prosecutions or Cautions in 2018 relating to Wastewater Treatment discharges. However, we did have 12 serious incidents over the year compared to 3 the year before. We are appointing a new Head of Environmental Compliance to help us mature our approach to improved compliance in this area.

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